

## Exhibit 1

## DUKE ENERGY PROGRESS, LLC

## Docket No. 2018-XX-E

## Summary of DSM/EE Billing Rates - January 2019 through December 2019

All rates are shown in cents per kWh

## Rates Net of South Carolina Gross Receipts Taxes (GRT) and Regulatory Fee

SC Rate Class	EE Rate (1)	DSM Rate (2)	Total EE/DSM Rate (3)	RECD Adjustment (4)	DSM/EE Billing Rate (5)
Residential	0.648203	0.388879	1.037082	0.008161	1.04524
General Service (EE only)	0.611473		0.611473	0.000000	0.61147
General Service (DSM only)		0.021686	0.021686	0.000000	0.02169
Lighting	0.000000	0.000000	0.000000	0.000000	-

## Rates Including SC Gross Receipts Taxes at 0.30% and Regulatory Fee at 0.143011%

SC Rate Class	DSM/EE Rate (net of GRT and Regulatory Fee) (6)	Gross Receipts Tax and Regulatory Fee Adjustment (7)	DSM/EE Billing Rate (8)
Residential	1.04524	0.00465	1.050
General Service ( EE only)	0.61147	0.00272	0.614
General Service (DSM only)	0.021690	0.00010	0.022
Lighting	0.00000	0.00000	0

**NOTES:**

- (1) Total EE Rate is derived in Exhibit 2 page 1, column (10).
- (2) Total DSM Rate is derived in Exhibit 2 page 2, column (10).
- (3) Total DSM/EE Rate is sum of columns (1) and (2).
- (4) Adjustment factors derived in Exhibit 2 page 7 applied to column (3).
- (5) DSM and EE Rate is derived from the sum of columns (3) and (4) and rounded to 5 decimal points.
- (6) DSM and EE Billing Rate from column (5).
- (7) Calculated Gross Receipts Tax and Regulatory Fee at the combined rate of 0.44301% on column (6).
- (8) DSM and EE Billing Rate is derived from the sum of columns (6) and (7) and rounded to 3 decimal points.

## DUKE ENERGY PROGRESS, LLC

## Docket No. 2018-xx-E

## Energy Efficiency Rate Derivation

SC Rate Class	Adjusted SC Rate Class kWhr Sales <sup>(1)</sup>	Rate Class Energy Allocation Factor <sup>(2)</sup>	EE Revenue Requirements							Total EE Rate (cents/ per kWh) <sup>(10) = (9) / (1)</sup>
			Residential Programs <sup>(3)</sup>	CIG Programs <sup>(4)</sup>	Common Programs <sup>(5)</sup>	Allocated A&G Costs <sup>(5)</sup>	Allocated Carrying Costs <sup>(5)</sup>	Net Test Period Revenue Requirement <sup>(6)</sup>	Total of Allocated Costs <sup>(9) = Σ (3 thru 8)</sup>	
	<sup>(1)</sup>	<sup>(2)</sup>	<sup>(3)</sup>	<sup>(4)</sup>	<sup>(5)</sup>	<sup>(6)</sup>	<sup>(7)</sup>	<sup>(8)</sup>		
Residential	2,275,569,267	58.26%	12,503,878	-	-	469,638	729,852	1,046,947	14,750,314	0.648203
General Service	1,539,809,622	39.42%	-	10,383,038	-	286,710	445,568	(1,699,789)	9,415,527	0.611473
Lighting	90,476,861	2.32%	-	-	-	-	-	-	-	0
SC Retail	3,905,290,041	100.00%	12,503,878	10,383,038	-	756,347	1,175,420	(652,842)	24,165,841	

## NOTES:

(1) Rate Class Sales, excluding "Opt-Out" sales, are derived in Exhibit 6.

(2) Rate Class Energy Allocation Factor is derived in Exhibit 5, page 5.

(3) Lighting Program costs were allocated to both Residential and General Service Customer Classes.

All other Residential programs outlined on Exhibit 2 page 3 are allocated solely to the Residential customer class.

(4) Lighting Program costs were allocated to both Residential and General Service Customer Classes.

All other Non-Residential programs outlined on Exhibit 2 page 3 are allocated solely to the Non-Residential customer class.

(5) A&amp;G and Carrying Costs are allocated on the basis of revenue requirements (excluding incentives and lost revenues).

(6) Net Test Period Revenue Requirements are derived on Exhibit 2, page 4.

Please note: Exhibit may not foot due to rounding.

## DUKE ENERGY PROGRESS, LLC

Docket No. SC 2018-xx-E

## Demand Side Management Rate Derivation

SC Rate Class	Adjusted SC Rate Class kWhr Sales <sup>(1)</sup>	Rate Class Demand Allocation Factor <sup>(2)</sup>	DSM Revenue Requirement							
			Residential Programs <sup>(3)</sup>	CIG Programs <sup>(4)</sup>	DSDR <sup>(5)</sup>	Non-DSDR Assigned A&G and Carrying Costs <sup>(6)</sup>	DSDR Assigned A&G and Carrying Costs <sup>(5)</sup>	Net Test Period Revenue Requirement <sup>(7)</sup>	Total of Allocated Costs (9) = Σ (3 thru 8)	Total DSM Rate (10) = (9) / (1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Residential	2,275,569,267	66.02%	4,084,351	-	3,076,828	464,020	117,123	1,106,890	8,849,211	0.388879
General Service	1,532,984,010	33.98%	-	787,158	1,583,962	113,109	60,295	(2,212,078)	332,446	0.021686
Lighting	90,483,797	0.00%	-	-	-	-	-	-	-	-
SC Retail	3,899,037,074	100.00%	4,084,351	787,158	4,660,789	577,129	177,418	(1,105,188)	9,181,657	

## NOTES:

(1) Rate Class Sales, excluding "Opt-Out" sales, are derived in Exhibit 6.

(2) Rate Class Demand Allocation Factor is derived in Exhibit 5 page 6.

(3) EnergyWise costs are directly assigned solely to Residential Rate Class.

(4) CIG DR and EnergyWise for Business Program costs are directly assigned solely to General Service Class.

(5) DSDR Costs and assigned A&amp;G and carrying costs are allocated using Rate Class Demand Allocation Factor from column (2).

(6) Non-DSDR A&amp;G and Carrying Costs are allocated on the basis of revenue requirements (excluding incentives and lost revenues) assigned in columns (3) and (4).

(7) Net Test Period Revenue Requirements are derived on Exhibit 2 page 4.

Please note: Exhibit may not foot due to rounding.

DUKE ENERGY PROGRESS, LLC  
Docket Number 2018-XX-E  
Rate Period Revenue Requirement Summary - SC  
January 2019 - December 2019

		SOUTH CAROLINA JURISDICTIONALLY ALLOCATED RETAIL COSTS ONLY																			
		O&M	Insurance	A&G Expense	Capitalized O&M and A&G	Amortization of Capitalized O&M	Amortization of Capitalized A&G	Current Period Amortization	Prior Period Amortization	DSDR Capital Costs	Income Taxes on DSDR Capital Costs	DSDR Property Taxes	DSDR Depreciation	Carrying Costs Net of Taxes	Income Taxes on Carrying Cost	Rev Reqmt Before PPI & NLR	Net Lost Revenue	PPI	Total Revenue Requirement		
(1)	(2)	(3)	(4)	(5)	(6)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)				
			ΣCols(1)thru(3)		((1)+(2))/10		(3)/10								ΣCols(5)thru(12)					ΣCols(13)thru(15)	
SC DSM Program Expenses																					
1 CIG DR	Per Forecast	349,129	-	-	349,129	116,376	-	116,376	290,266	-	-	-	-	406,642	-	147,666	554,308				
2 EnergyWise	Per Forecast	1,803,479	-	-	1,803,479	601,160	-	601,160	2,002,583	-	-	-	-	2,603,743	-	1,480,608	4,084,351				
3 EnergyWise for Business	Per Forecast	316,090	-	-	316,090	105,363	-	105,363	122,683	-	-	-	-	228,046	14,488	(9,684)	232,850				
4 Total DSM	Σ Lines 1 thru 3	\$ 2,468,698	\$ -	\$ -	\$ 2,468,698	\$ 822,899	\$ -	\$ 822,899	\$ 2,415,532	\$ -	\$ -	\$ -	\$ -	\$ 3,238,431	\$ 14,488	\$ 1,618,590	\$ 4,871,508				
5 DSM A&G and Carrying Costs	Per Forecast	-	-	123,685	123,685	-	41,228	41,228	150,705	-	-	313,597	71,599	577,129	-	-	577,129				
6 Total DSM and Assigned Cost	Σ Lines 4 thru 5	\$ 2,468,698	\$ -	\$ 123,685	\$ 2,592,383	\$ 822,899	\$ 41,228	\$ 864,127	\$ 2,566,237	\$ -	\$ -	\$ -	\$ -	\$ 313,597	\$ 71,599	\$ 3,815,560	\$ 5,448,637				
SC EE Program Expenses					-	-	-	-	-	-	-	-	-	-	-	-	-				
7 Res Home Advantage	Per Forecast	-	-	-	-	-	-	-	54,629	-	-	-	-	54,629	-	27,338	81,967				
8 Res Home Energy Improvem't	Per Forecast	543,747	-	-	543,747	181,249	-	181,249	1,003,229	-	-	-	-	1,184,478	125,221	67,384	1,377,083				
9 Neighborhood Energy Saver	Per Forecast	276,814	-	-	276,814	92,271	-	92,271	329,548	-	-	-	-	421,819	82,462	-	504,281				
10 My Home Energy Report	Per Forecast	1,089,776	-	-	1,089,776	1,089,776	-	1,089,776	-	-	-	-	-	1,089,776	804,154	527	1,894,458				
11 Solar Hot Water Pilot	Per Forecast	-	-	-	-	-	-	-	5,024	-	-	-	-	5,024	-	-	5,024				
12 Lighting - Residential	Per Forecast	1,605,432	-	-	1,605,432	535,144	-	535,144	1,440,679	-	-	-	-	1,975,823	816,125	849,803	3,641,751				
13 Res Appliance Recycling	Per Forecast	-	-	-	-	-	-	-	141,744	-	-	-	-	141,744	32	20,240	162,016				
14 Residential New Construction	Per Forecast	1,730,721	-	-	1,730,721	576,907	-	576,907	1,362,969	-	-	-	-	1,939,876	935	351,967	2,292,778				
15 Multi Family Energy Efficiency	Per Forecast	373,304	-	-	373,304	124,435	-	124,435	308,887	-	-	-	-	433,322	279,634	208,205	921,161				
16 Energy Education Program for Schools	Per Forecast	103,105	-	-	103,105	34,368	-	34,368	89,574	-	-	-	-	123,942	84,337	-	208,279				
17 Save Energy & Water Kit	Per Forecast	208,355	-	-	208,355	69,452	-	69,452	111,238	-	-	-	-	180,690	578,008	329,590	1,088,287				
18 Residential Assessments	Per Forecast	155,516	-	-	155,516	51,839	-	51,839	132,011	-	-	-	-	183,850	105,972	36,972	326,793				
19 Home Depot - CFL	Per Forecast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
20 Found Revenue	Per Forecast	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Subtotal Residential EE Programs		\$ 6,086,770	\$ -	\$ -	\$ 6,086,770	\$ 2,755,441	\$ -	\$ 2,755,441	\$ 4,979,532	\$ -	\$ -	\$ -	\$ -	\$ 7,734,973	\$ 2,876,881	\$ 1,892,025	\$ 12,503,878				
SC Non-Residential EE Program Expenses					-	-	-	-	-	-	-	-	-	-	-	-	-				
21 CIG Energy Efficiency	Per Forecast	-	-	-	-	-	-	-	639,357	-	-	-	-	639,357	-	-	639,357				
22 Lighting - General Service	Per Forecast	194,581	-	-	194,581	64,860	-	64,860	174,847	-	-	-	-	239,707	217,124	293,270	750,102				
23 Small Business Energy Saver	Per Forecast	1,256,291	-	-	1,256,291	418,764	-	418,764	1,226,623	-	-	-	-	1,645,387	1,101,583	559,170	3,306,140				
24 Non-Res Custom Incentive	Per Forecast	268,026	-	-	268,026	89,342	-	89,342	67,691	-	-	-	-	157,033	-	68,409	225,442				
25 Non- Res Prescriptive Lighting	Per Forecast	1,758,039	-	-	1,758,039	586,013	-	586,013	442,809	-	-	-	-	1,028,822	-	1,258,824	2,287,646				
26 Non- Res Performance Incentive	Per Forecast	-	-	-	-	-	-	-	-	-	-	-	-	-	67,173	12,143	79,316				
26 Energy Efficiency for Business	Per Forecast	-	-	-	-	-	-	-	1,010,892	-	-	-	-	1,010,892	2,122,962	-	3,133,854				
27 Business Energy Report	Per Forecast	-	-	-	-	-	-	-	939	-	-	-	-	939	-	(330)	609				
28 Found Revenue		-	-	-	-	-	-	-	-	-	-	-	-	-	(39,426)	-	(39,426)				
Subtotal Non-Residential EE Programs		\$ 3,476,937	\$ -	\$ -	\$ 3,476,937	\$ 1,158,979	\$ -	\$ 1,158,979	\$ 3,563,158	\$ -	\$ -	\$ -	\$ -	\$ 4,722,137	\$ 3,469,416	\$ 2,191,485	\$ 10,383,038				
29 Total EE	Σ Lines 7 thru 27	\$ 9,563,707	\$ -	\$ -	\$ 9,563,707	\$ 3,914,420	\$ -	\$ 3,914,420	\$ 8,542,690	\$ -	\$ -	\$ -	\$ -	\$ 12,457,110	\$ 6,346,297	\$ 4,083,509	\$ 22,886,916				
30 EE A&G and Carrying Costs	Per Books	-	-	598,141	598,141	-	199,380	199,380	556,967	-	-	956,937	218,483	1,931,767	-	-	1,931,767				
31 Total EE and Assigned Cost	Σ Lines 29 thru 30	\$ 9,563,707	\$ -	\$ 598,141	\$ 10,161,848	\$ 3,914,420	\$ 199,380	\$ 4,113,800	\$ 9,099,657	\$ -	\$ -	\$ -	\$ -	\$ 14,388,877	\$ 6,346,297	\$ 4,083,509	\$ 24,818,683				
SC DSDR Program Expenses					-	-	-	-	-	-	-	-	-	-	-	-	-				
32 DSDR Program	Per Forecast	\$ 694,128	\$ 104,878	\$ -	\$ 799,006	\$ 266,335	\$ -	\$ 266,335	\$ 1,095,831	\$ 1,017,751	\$ 231,653	\$ 384,542	\$ 1,664,677	-	4,660,789	\$ -	\$ 4,660,789				
33 DSDR A&G and Carrying Costs	Per Forecast	-	-	-	-	-	-	-	2,713	-	-	-	142,215	32,490	177,418	-	177,418				
34 Total DSDR and Assigned Cost	Σ Lines 32 thru 33	694,128	104,878	-	799,006	266,335	-	266,335	1,098,544	1,017,751	231,653	384,542	1,664,677	142,215	32,490	-	4,838,207				
35 Rate Period Totals		Lines 6 + 31 + 34	\$ 12,726,533	\$ 104,878	\$ 721,826	\$ 13,553,237	\$ 5,003,654	\$ 240,608	\$ 5,244,262	\$ 12,764,438	\$ 1,017,751	\$ 231,653	\$ 384,542	\$ 1,664,677	\$ 1,412,749	\$ 322,572	\$ 23,042,644	\$ 35,105,528			

<sup>1</sup> Residential EE Benchmarking Program costs are recovered during the current period. All other program costs are recovered over a 3 year period.  
Please note: Exhibit may not foot due to rounding.



**DUKE ENERGY PROGRESS, LLC**  
**Docket No. 2018-XX-E**  
**Determination of Net Revenue Requirement for Test Period**

		Residential	General Service	Lighting	Total
1 Prior Period Recovery Balance at December 31, 2016					
2 Energy Efficiency Programs	<i>Doc No. 2017-245-E Exh 2</i>	4,746,504	294,673	-	5,041,177
3 Demand Side Management Programs	<i>Doc No. 2017-245-E Exh 2</i>	705,319	(210,203)	-	495,116
4 DSDR Program Expenses	<i>Doc No. 2017-245-E Exh 2</i>	378,246	(347,610)	-	30,636
5 Balance - Prior (Over) or Under Collection	<i>Lines 2 + 3 + 4</i>	5,830,069	(263,140)	-	5,566,929
6					
7 Current Period Cost of Service (1-17 to 12-17)					
8 Energy Efficiency Programs	<i>Exhibit 2 (Page 6 of 7)</i>	6,863,838	3,845,364	-	10,709,202
9 E E A&G and Carrying Cost Allocation	<i>Exhibit 2 (Page 6 of 7)</i>	1,323,525	741,485	-	2,065,010
10 E E PPI and Net Lost Revenues	<i>Exhibit 2 (Page 6 of 7)</i>	3,402,018	3,501,370	-	6,903,388
11 Total Energy Efficiency Cost of Service	<i>Lines 8 + 9 + 10</i>	11,589,381	8,088,219	-	19,677,600
12					
13 Demand Side Management Programs	<i>Exhibit 2 (Page 6 of 7)</i>	2,091,807	374,487	-	2,466,293
14 DSM A&G and Carrying Cost Allocation	<i>Exhibit 2 (Page 6 of 7)</i>	552,051	98,831	-	650,883
15 DSM PPI and Net Lost Revenues	<i>Exhibit 2 (Page 6 of 7)</i>	1,296,586	43,996	-	1,340,582
16 Total DSM Cost of Service	<i>Lines 13 + 14 + 15</i>	3,940,444	517,314	-	4,457,758
17					
18 DSDR Program	<i>Exhibit 2 (Page 6 of 7)</i>	3,150,974	1,622,133	-	4,773,106
19 DSDR A&G and Carrying Cost Allocation	<i>Exhibit 2 (Page 6 of 7)</i>	187,836	96,698	-	284,534
20 DSDR Net Lost Revenues	<i>Exhibit 2 (Page 6 of 7)</i>	13,011	6,698	-	19,710
21 Total DSDR Cost of Service	<i>Lines 18 + 19 + 20</i>	3,351,821	1,725,529	-	5,077,350
22					
23 Cost of Service for 12 ME 12-31-17	<i>Line 11 + Line 16 + Line 21</i>	18,881,646	10,331,063	-	29,212,709
24					
25 Cost of Service & Prior Bal at December 31, 2017					
26 Energy Efficiency Programs	<i>Line 2 + Line 11</i>	16,335,885	8,382,892	-	24,718,777
27 Demand Side Management Programs	<i>Line 3 + Line 16</i>	4,645,763	307,111	-	4,952,874
28 DSDR Program	<i>Line 4 + Line 21</i>	3,730,067	1,377,919	-	5,107,986
29 Total Net COS Before Revenue Offsets	<i>Lines 26 + 27 + 28</i>	24,711,715	10,067,923	-	34,779,638
30					
31 Actual & Trued Up Revenue (1-17 to 12-17)					
32 EE Revenue	<i>Exhibit 4</i>	15,487,420	10,228,276	-	25,715,696
33 DSM Revenue	<i>Exhibit 4</i>	3,599,160	1,063,792	-	4,662,952
34 DSDR Revenue	<i>Exhibit 4</i>	3,791,715	2,495,809	-	6,287,523
35 Est Total Test Period Revenue (1-17 to 12-17)	<i>Lines 32 + 33 + 34</i>	22,878,295	13,787,876	-	36,666,172
36					
37 Adjustments					
38 Energy Efficiency	<i>Exhibit 2 (page 5 of 7)</i>	198,482	145,594		344,077
39 Demand Side Management	<i>Exhibit 2 (page 5 of 7)</i>	150,652	(144,190)		6,462
40 DSDR	<i>Exhibit 2 (page 5 of 7)</i>	(28,716)	(193,318)		(222,035)
41 Total Adjustments	<i>Lines + 38 + 39 + 40</i>	320,418	(191,914)	-	128,504
42					
43 Revenue Requirement at December 31, 2017					
44 EE Portion of Revenue Requirement	<i>Lines 26 - 32 + 38</i>	1,046,947	(1,699,789)	-	(652,842)
45 DSM Portion of Revenue Requirement	<i>Lines 27 - 33 + 39</i>	1,197,254	(900,871)	-	296,384
46 DSDR Portion of Revenue Requirement	<i>Lines 28 - 34 + 40</i>	(90,364)	(1,311,207)	-	(1,401,572)
47 Total Net Test Period Revenue Requirement	<i>Lines + 44 + 45 + 46</i>	2,153,838	(3,911,868)	-	(1,758,030)
48 Forecasted Rate Period Revenue Requirement	<i>Exhibit 2 (Page 3 of 7)</i>				35,105,528
49 Referenced Rate Period Recovery Level	<i>Lines 47 + 48</i>				33,347,498

Please note: Exhibit may not foot due to rounding.

**DUKE ENERGY PROGRESS, LLC**  
**Docket No. 2018 - XX- E**  
**Test Period Revenue Requirement Adjustments**

A. Recognition of 2017 Test Period Uncollectible - Adjustments		Res	Gen Svc	Total
EE Component	Workpapers	-	-	-
DSM Component	Workpapers	-	-	-
DSDR Component	Workpapers	-	-	-
Total	Totals from Above	-	-	-
B. Recognition of 2017 Test Period Uncollectibles In Rates		Res	Gen Svc	Total
EE Component	Workpapers	-	-	-
DSM Component	Workpapers	-	-	-
DSDR Component	Workpapers	-	-	-
Total	Totals from Above	-	-	-
C Inclusion of Amortization and Interest Formula Error from 2017 filing		Res	Gen Svc	Total
EE Component	Workpapers	-	512,155	512,155
DSM Component	Workpapers	-	(1,181)	(1,181)
DSDR Component	Workpapers	-	(1,952)	(1,952)
D Recognition of Revenues to be Received in 2019 as part of Net Metering Rider		Res	Gen Svc	Total
EE Component	Workpapers	(69,325)	-	(69,325)
DSM Component	Workpapers	(22,645)	-	(22,645)
DSDR Component	Workpapers	(17,059)	-	(17,059)
Total	Totals from Above	(109,029)	-	(109,029)
E Recognition on Interest on 2017 Test Period Net Undercollections		Res	Gen Svc	Total
EE Component	Exhibit 3	151,540	(249,027)	(97,487)
DSM Component	Exhibit 3	173,297	(131,982)	41,315
DSDR Component	Exhibit 3	(13,080)	(192,098)	(205,178)
Total	Totals from Above	311,757	(573,107)	(261,350)
F Summary Total of Adjustments		Res	Gen Svc	Total
EE Component	Σ Sections A through D	82,215	263,128	345,343
DSM Component	Σ Sections A through D	150,652	(133,162)	17,489
DSDR Component	Σ Sections A through D	(30,139)	(194,050)	(224,189)
Total	Totals from Above	202,728	(64,085)	138,643

## EM&amp;V TRUE-UPS

Page 5b of 7

## G Recognition of EM&amp;V True-Ups

			Res	Gen Svc	Total
Vintage 2015 PPI True Up (Overcollection)					
EE	Component	Exhibit 7 page 1	(27,712)	-	(27,712)
Vintage 2015 PPI True Up					
DSM	Component	Exhibit 7 page 1	-	-	-
Vintage 2016 PPI True Up (Overcollection)					
EE	Component	Exhibit 7 page 3	(21,723)	(1,650)	(23,373)
Vintage 2016 PPI True Up (Overcollection)					
DSM	Component	Exhibit 7 page 3	-	(11,028)	(11,028)
Vintage 2015 Lost Revenue True up					
EE	Component	Exhibit 8 page 6	(119,825)	-	(119,825)
Vintage 2016 Lost Revenue True Up					
EE	Component	Exhibit 8 page 6	285,527	(115,883)	169,643
DSDR	Component	Exhibit 8 page 6	1,422	732	2,154

## H Summary Total of EM&amp;V Related Adjustments

EE Component	Σ Section F Above	\$ 116,267	\$ (117,534)	\$ (1,266)
DSM Component	Σ Section F Above	-	(11,028)	(11,028)
DSDR Component	Σ Section F Above	1,422	732	2,154
Total	Totals from Above	\$ 117,689	\$ (127,829)	\$ (10,140)

## I Net Revenue Requirement Adjustments

		Res	Gen Svc	Total
EE Component	Σ Sections E and G	\$ 198,482	\$ 145,594	\$ 344,077
DSM Component	Σ Sections E and G	150,652	(144,190)	6,462
DSDR Component	Σ Sections E and G	(28,716)	(193,318)	(222,035)
Total	Totals from Above	\$ 320,418	\$ (191,914)	\$ 128,504

**DUKE ENERGY PROGRESS, LLC**  
**Docket Number 2018-XX-E**  
**EMF Period Revenue Requirement Summary - SC**  
**January 2017 - December 2017**

		SOUTH CAROLINA JURISDICTIONALLY ALLOCATED RETAIL COSTS ONLY																				
		O&M	Insurance	A&G Expense	Capitalized O&M and A&G	Amortization of Capitalized O&M	Amortization of Capitalized A&G	Current Period Amortization	Prior Period Amortization	DSDR Capital Costs	Income Taxes on DSDR Capital Costs	DSDR Property Taxes	DSDR Depreciation	Carrying Costs Net of Taxes	Income Taxes on Carrying Cost	Rev Reqmt Before PPI & NLR	Net Lost Revenue	PPI	Total Revenue Requirement			
		(1)	(2)	(3)	(4)	(5)	(6)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)			
		ΣCols(1)thru(3)			((1)+(2))/3		(3)/3												ΣCols(5)thru(12)		ΣCols(13)thru(15)	
SC DSM Program Expenses																						
1 CIG DR	Per Books	201,543		-	201,543	67,181	-	67,181	194,370							261,551		41,379	302,930			
2 EnergyWise	Per Books	1,736,321		-	1,736,321	578,774	-	578,774	1,513,033							2,091,807		1,296,586	3,388,393			
3 EnergyWise for Business	Per Books	183,953		-	183,953	61,318	-	61,318	51,618							112,936	1,296	1,321	115,553			
4 Total DSM	Σ Lines 1 thru 3	2,121,817	-	-	2,121,817	707,272		707,272	1,759,021	-	-	-	-	-	-	2,466,293	1,296	1,339,286	3,806,876			
5 DSM A&G and Carrying Costs	Per Books	-	-	110,126	110,126	-	36,709	36,709	136,908					332,019	145,247	650,883			650,883			
6 Total DSM and Assigned Cost	Σ Lines 4 thru 5	2,121,817	-	110,126	2,231,943	707,272	36,709	743,981	1,895,929	-	-	-	-	332,019	145,247	3,117,176	1,296	1,339,286	4,457,758			
SC EE Program Expenses																						
7 Res Home Advantage	Per Books	-	-	-	-	-	-	-	71,591							71,591	-	28,759	100,350			
8 Res Home Energy Improvem't	Per Books	964,242	-	-	964,242	321,414	-	321,414	837,214							1,158,628	28,036	75,824	1,262,488			
9 Neighborhood Energy Saver	Per Books	246,699	-	-	246,699	82,233	-	82,233	264,447							346,680	49,640	-	396,320			
10 Solar Hot Water Pilot	Per Books	-	-	-	-	-	-	-	6,778							6,778		-	6,778			
11 Energy Efficient Lighting - Residential	Per Books allocated	1,510,668	-	-	1,510,668	503,556	-	503,556	1,919,891							2,423,447	549,492	798,494	3,771,433			
12 Appliance Recycling Program	Per Books	774	-	-	774	258		258	101,995							102,253	352	20,210	122,815			
13 Res EE Benchmarking/My HER <sup>1</sup>	Per Books	935,318	-	-	935,318	935,318	-	935,318	-							935,318	761,737	30,729	1,727,783			
14 Home Depot CFL	Per Books	-	-	-	-	-	-	-	2,140							2,140		10,473	12,613			
15 Residential New Construction	Per Books	1,616,545	-	-	1,616,545	538,848	-	538,848	670,196							1,209,044	200	215,445	1,424,690			
16 Energy Education Program for Schools	Per Books	115,785	-	-	115,785	38,595	-	38,595	58,717							97,312	35,654	-	132,966			
17 Save Energy & Water Kits	Per Books	123,109			123,109	41,036		41,036	30,991							72,027	185,526	215,694	473,247			
18 Residential Energy Assessments	Per Books	258,094			258,094	86,031		86,031	65,146							151,177	60,511	37,693	249,382			
19 Multi-Family EE Programs	Per Books	348,249	-	-	348,249	116,083	-	116,083	171,359							287,442	143,306	154,243	584,992			
Subtotal Residential EE Programs		6,119,483	-	-	6,119,483	2,663,373	-	2,663,373	4,200,465	-	-	-	-	-	-	6,863,838	1,814,455	1,587,563	10,265,856			
20 Lighting - General Service	Per Books allocated	183,091	-	-	183,091	61,030	-	61,030	233,177							294,207	164,464	270,538	729,210			
21 CIG Energy Efficiency/ EE for Business	Per Books	3,032,677	-	-	3,032,677	1,010,892	-	1,010,892	1,359,067							2,369,959	855,439	1,300,789	4,526,187			
22 Small Business Energy Saver	Per Books	1,214,758	-	-	1,214,758	404,919	-	404,919	768,248							1,173,167	489,812	430,575	2,093,554			
23 Business Energy Report	Per Books	5,168	-	-	5,168	1,723	-	1,723	6,307							8,030	97	(330)	7,796			
24 Non-Res Smart Saver Performance	Per Books																	1,658				
25 Found Revenues	Per Books																(11,672)		(11,672)			
Subtotal Non-Residential EE Programs		4,435,694	-	-	4,435,694	1,478,565	-	1,478,565	2,366,799	-	-	-	-	-	-	3,845,364	1,498,140	2,003,230	7,346,734			
26 Total EE	Σ Lines 7 thru 23	10,555,177	-	-	10,555,177	4,141,938	-	4,141,938	6,567,264	-	-	-	-	-	-	10,709,202	3,312,595	3,590,794	17,612,590			
27 EE A&G and Carrying Costs	Per Books	-	-	443,038	443,038	-	147,679	147,679	418,021					1,043,040	456,270	2,065,010			2,065,010			
28 Total EE and Assigned Cost	Σ Lines 24 thru 25	10,555,177	-	443,038	10,998,215	4,141,938	147,679	4,289,617	6,985,285	-	-	-	-	1,043,040	456,270	12,774,212	3,312,595	3,590,794	19,677,600			
SC DSDR Program Expenses																						
29 DSDR Program	Per Books	643,564	118,971	-	762,535	254,178		254,178	917,987	972,552	423,986	418,926	1,785,477			4,773,106	19,710		4,792,816			
30 DSDR A&G and Carrying Costs	Per Books	-	-	-	-	-		-	42,206					168,580	73,748	284,534			284,534			
31 Total DSDR and Assigned Cost	Σ Lines 27 thru 28	643,564	118,971	-	762,535	254,178	-	254,178	960,193	972,552	423,986	418,926	1,785,477	168,580	73,748	5,057,640	19,710	-	5,077,350			
32 Test Period Totals	Lines 6 + 26 + 29	13,320,558	118,971	553,164	13,992,693	5,103,388	184,388	5,287,776	9,841,407	972,552	423,986	418,926	1,785,477	1,543,639	675,265	20,949,028	3,333,601	4,930,080	29,212,709			

<sup>1</sup> Residential EE Benchmarking Program costs are recovered during the current period. All other program costs are recovered over a 3 year period.  
Please note: Exhibit may not foot due to rounding.

**DUKE ENERGY PROGRESS, LLC****Docket No. 2018 - XX - E****EE/DSM Billing Rate - January 1, 2019 through December 31, 2019****Revenue Adjustment Factors**

## Residential Adjustment Factor

1 Billed kWh (12ME 12/31/17)	Per Books	2,037,262,680
2 Billed RECD kWh (12ME 12/31/17)	Per Books	302,044,344 (a)
3 RECD kWh Percent of Total Billed	Line 2 / Line 1	15.616%
4 RECD Discount Percentage	RECD Discount	5.00% (b)
5 RECD Impact (Weighted Discount)	Line 3 x Line 4	0.7808% (d)
6 Uncollectable Estimate for Forecast Period	N/A for 2019	(c)
7 Residential Adjustment Factor for Rate Period	Line 5 + Line 6	0.7808% (d)

## General Service Adjustment Factor

8 Uncollectable Estimate for Forecast Period	N/A for 2019	(c)
9 General Service Adjustment Factor for Rate Period	Line 8	- (d)

## Notes:

- (a) Energy billed and discounted pursuant to Residential Energy Conservation Discount, Rider RECD-2B.
- (b) Five-percent discount provided under Residential Energy Conservation Discount, Rider RECD-2B.
- (c) DEP is not requesting an uncollectible adjustment for the prospective period as a new base level of uncollectibles was approved with rates going into effect 1/1/17. Starting with rates going into effect 1/1/19, the Company will perform an analysis of the actual uncollectible experience versus amounts in base rates and make an adjustment if necessary.
- (d) Estimated impacts of uncollectable and RECD related discounts will be trued up as necessary in future filings.

### A. Residential

(Sum of Lines 6 thru 35)

B. General Service

Change in Rev Rqmt

1	<b>General Service Overcollection</b>		( Exh 2 Pg 4 Line 47 - Interest Adj. Exh 2 pg 5)	3,338,760.83		
2						
3	Monthly 8.5% Rate (per SC Supreme Court)		Int Rate / 12	0.708%		
4						
5		Gen Svc (kWh)	Percent Tot	Balance	Avg Balance	Interest
6	Jul-17			3,338,760.83	3,338,760.83	23,649.56
7	Aug-17			3,338,760.83	3,338,760.83	23,649.56
8	Sep-17			3,338,760.83	3,338,760.83	23,649.56
9	Oct-17			3,338,760.83	3,338,760.83	23,649.56
10	Nov-17			3,338,760.83	3,338,760.83	23,649.56
11	Dec-17			3,338,760.83	3,338,760.83	23,649.56
12	Jan-18			3,338,760.83	3,338,760.83	23,649.56
13	Feb-18			3,338,760.83	3,338,760.83	23,649.56
14	Mar-18			3,338,760.83	3,338,760.83	23,649.56
15	Apr-18			3,338,760.83	3,338,760.83	23,649.56
16	May-18			3,338,760.83	3,338,760.83	23,649.56
17	Jun-18			3,338,760.83	3,338,760.83	23,649.56
18	Jul-18			3,338,760.83	3,338,760.83	23,649.56
19	Aug-18			3,338,760.83	3,338,760.83	23,649.56
20	Sep-18			3,338,760.83	3,338,760.83	23,649.56
21	Oct-18			3,338,760.83	3,338,760.83	23,649.56
22	Nov-18			3,338,760.83	3,338,760.83	23,649.56
23	Dec-18			3,338,760.83	3,338,760.83	23,649.56
24	Jan-19	74,159,732	4.82%	3,177,960.69	3,258,360.76	23,080.06
25	Feb-19	107,898,005	7.01%	2,944,006.03	3,060,983.36	21,681.97
26	Mar-19	166,623,154	10.82%	2,582,717.95	2,763,361.99	19,573.81
27	Apr-19	135,822,191	8.82%	2,288,215.43	2,435,466.69	17,251.22
28	May-19	87,777,502	5.70%	2,097,887.95	2,193,051.69	15,534.12
29	Jun-19	179,031,280	11.63%	1,709,695.40	1,903,791.68	13,485.19
30	Jul-19	119,187,071	7.74%	1,451,262.72	1,580,479.06	11,195.06
31	Aug-19	161,483,504	10.49%	1,101,118.92	1,276,190.82	9,039.68
32	Sep-19	154,568,512	10.04%	765,968.85	933,543.89	6,612.60
33	Oct-19	66,831,401	4.34%	621,058.69	693,513.77	4,912.39
34	Nov-19	100,911,048	6.55%	402,253.81	511,656.25	3,624.23
35	Dec-19	185,516,221	12.05%	0.00	201,126.91	1,424.65
36	Total	1,539,809,621	100.00%			573,106.99

(Sum of Lines 6 thru 35)

C. Interest Allocation Factors

Residential	Pre-Interest	Under (Over)	Total Interest	Allocated Interest	Revenue Reqmt Impact
	Under (Over)	Allocation			
	895,406.97	48.61%			
	1,023,957.89	55.59%			
	(77,284.52)	-4.20%			
4 Totals	1,842,080.33	100.00%	NA	311,757.20	Increase
General Service	Pre-Interest	Under (Over)	Total Interest	Allocated Interest	Revenue Reqmt Impact
	Under (Over)	Allocation			
	(1,450,762.34)	43.45%			
	(768,889.07)	23.03%			
	(1,119,109.42)	33.52%			
8 Totals	(3,338,760.83)	100.00%	NA	(573,106.99)	Decrease

D. Residential Interest Allocations

				Residential Interest Breakdown				
		Allocation	AVG Balance		EE	DSM	DSDR	Total
1	Jul-17	Undercollection	(1,842,080.33)	Static Principal	(6,342.47)	(7,253.04)	547.43	(13,048.07)
2	Aug-17	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
3	Sep-17	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
4	Oct-17	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
5	Nov-17	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
6	Dec-17	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
7	Jan-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
8	Feb-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
9	Mar-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
10	Apr-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
11	May-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
12	Jun-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
13	Jul-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
14	Aug-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
15	Sep-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
16	Oct-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
17	Nov-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
18	Dec-18	Undercollection	(1,842,080.33)		(6,342.47)	(7,253.04)	547.43	(13,048.07)
19	Jan-19	Undercollection	(1,740,550.63)	Declining Principal (returned via rates)	(5,992.89)	(6,853.27)	517.26	(12,328.90)
20	Feb-19	Undercollection	(1,557,672.63)		(5,363.22)	(6,133.20)	462.91	(11,033.51)
21	Mar-19	Undercollection	(1,404,639.12)		(4,836.31)	(5,530.65)	417.43	(9,949.53)
22	Apr-19	Undercollection	(1,276,384.37)		(4,394.72)	(5,025.66)	379.32	(9,041.06)
23	May-19	Undercollection	(1,156,156.77)		(3,980.76)	(4,552.27)	343.59	(8,189.44)
24	Jun-19	Undercollection	(1,011,160.44)		(3,481.53)	(3,981.36)	300.50	(7,162.39)
25	Jul-19	Undercollection	(836,496.95)		(2,880.14)	(3,293.64)	248.59	(5,925.19)
26	Aug-19	Undercollection	(655,731.95)		(2,257.75)	(2,581.89)	194.87	(4,644.77)
27	Sep-19	Undercollection	(500,343.20)		(1,722.73)	(1,970.06)	148.69	(3,544.10)
28	Oct-19	Undercollection	(375,339.45)		(1,292.33)	(1,477.87)	111.54	(2,658.65)
29	Nov-19	Undercollection	(250,001.07)		(860.78)	(984.36)	74.30	(1,770.84)
30	Dec-19	Undercollection	(90,858.75)		(312.84)	(357.75)	27.00	(643.58)
31 Totals	(Σ Lines 1 thru 30)				(151,540.39)	(173,296.59)	13,079.78	(311,757.20)



E. General Service Interest Allocations

				General Service Interest Breakdown				
		Allocation	AVG Balance		EE	DSM	DSDR	Total
1	Jul-17	Overcollection	3,338,760.83	Static Principal	10,276.23	5,446.30	7,927.03	23,649.56
2	Aug-17	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
3	Sep-17	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
4	Oct-17	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
5	Nov-17	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
6	Dec-17	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
7	Jan-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
8	Feb-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
9	Mar-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
10	Apr-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
11	May-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
12	Jun-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
13	Jul-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
14	Aug-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
15	Sep-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
16	Oct-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
17	Nov-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
18	Dec-18	Overcollection	3,338,760.83		10,276.23	5,446.30	7,927.03	23,649.56
19	Jan-19	Overcollection	3,258,360.76	Declining Principal (returned via rates)	10,028.77	5,315.15	7,736.14	23,080.06
20	Feb-19	Overcollection	3,060,983.36		9,421.27	4,993.18	7,267.51	21,681.97
21	Mar-19	Overcollection	2,763,361.99		8,505.24	4,507.69	6,560.89	19,573.81
22	Apr-19	Overcollection	2,435,466.69		7,496.02	3,972.81	5,782.39	17,251.22
23	May-19	Overcollection	2,193,051.69		6,749.90	3,577.38	5,206.83	15,534.12
24	Jun-19	Overcollection	1,903,791.68		5,859.60	3,105.53	4,520.06	13,485.19
25	Jul-19	Overcollection	1,580,479.06		4,864.49	2,578.13	3,752.44	11,195.06
26	Aug-19	Overcollection	1,276,190.82		3,927.93	2,081.76	3,029.99	9,039.68
27	Sep-19	Overcollection	933,543.89		2,873.32	1,522.83	2,216.46	6,612.60
28	Oct-19	Overcollection	693,513.77		2,134.54	1,131.28	1,646.57	4,912.39
29	Nov-19	Overcollection	511,656.25		1,574.81	834.63	1,214.80	3,624.23
30	Dec-19	Overcollection	201,126.91		619.04	328.08	477.52	1,424.65
31 Totals		(Σ Lines 1 thru 21)			249,027.13	131,981.81	192,098.05	573,106.99

F. Values / Adjustments for 2018 SC DSM/EE Filing - Increase / (Decrease) in Revenue Requirement

		Res	Gen Svc	Total
Recognition on Interest on 2017 Test Period Over & (Under) Collections				
1	EE Component	151,540.39	(249,027.13)	(97,486.74)
2	DSM Component	173,296.59	(131,981.81)	41,314.78
3	DSDR Component	(13,079.78)	(192,098.05)	(205,177.83)
4	Total	311,757.20	(573,106.99)	(261,349.79)

Exhibit 4

**DUKE ENERGY PROGRESS,LLC**  
**Docket No. 2018-xx-E**  
**2017 Actual Revenues**

	<b>DSM</b>	<b>DSDR</b>	<b>EE</b>	<b>Total</b>
Rate Period				
Residential	3,599,160	3,791,715	15,487,420	22,878,295
General Service	1,063,792	2,495,809	10,228,276	13,787,876
Lighting	-	-	-	-
Total	4,662,952	6,287,523	25,715,696	36,666,172

**DUKE ENERGY PROGRESS, LLC**  
**Docket No. 2018-XX-E**  
**Allocation Factor Summary through 2015**

					DSM		EE	
					NC	SC	NC	SC
<b>A. Allocation Factors</b>								
1	May-08	to	Apr-09	<i>Calendar 2007 Analysis</i> <sup>1</sup>	86.73%	13.27%	84.81%	15.19%
1	May-09	to	Apr-10	<i>Calendar 2008 Analysis</i> <sup>1</sup>	86.16%	13.84%	85.06%	14.94%
2	May-10	to	Apr-11	<i>Calendar 2009 Analysis</i> <sup>2</sup>	85.89%	14.11%	85.41%	14.59%
3	May-11	to	Apr-12	<i>Calendar 2010 Analysis</i> <sup>3</sup>	86.49%	13.51%	85.53%	14.47%
4	May-12	to	Apr-13	<i>Calendar 2011 Analysis</i> <sup>4</sup>	86.63%	13.37%	85.92%	14.08%
5	May-13	to	Apr-14	<i>Calendar 2012 Analysis</i> <sup>5</sup>	86.47%	13.53%	86.06%	13.94%
6	May-14	to	Apr-15	<i>Calendar 2013 Analysis</i> <sup>6</sup>	85.68%	14.32%	85.57%	14.43%
7	May-15	to	Dec-15	<i>Calendar 2014 Analysis</i> <sup>7</sup>	86.23%	13.77%	85.15%	14.85%
<b>B. Custom Period Factors</b>								
<i>Test Period</i> <sup>4</sup>								
4	Apr-10	to	Mar-11	<i>Line 1 x <math>\frac{1}{12}</math> + Line 2 x 11 x <math>\frac{1}{12}</math></i>	85.91%	14.09%	85.38%	14.62%
<i>Prospective Period</i> <sup>4</sup>								
5	Apr-11	to	Jul-11	<i>Line 2 x <math>\frac{1}{4}</math> + Line 3 x <math>\frac{3}{4}</math></i>	86.34%	13.66%	85.50%	14.50%
<i>Rate Period</i> <sup>4</sup>								
6	Dec-11	to	Nov-12	<i>Line 3</i>	86.49%	13.51%	85.53%	14.47%
<i>Calendar Year 2010</i> <sup>8</sup>								
8	Jan-10	to	Dec-10	<i>Line 1 x <math>\frac{1}{3}</math> + Line 2 x <math>\frac{2}{3}</math></i>	85.98%	14.02%	85.29%	14.71%
<i>Calendar Year 2011</i> <sup>8</sup>								
9	Jan-11	to	Dec-11	<i>Line 2 x <math>\frac{1}{3}</math> + Line 3 x <math>\frac{2}{3}</math></i>	86.29%	13.71%	85.49%	14.51%
<i>Calendar Year 2012</i> <sup>8</sup>								
10	Jan-12	to	Dec-12	<i>Line 3 x <math>\frac{1}{3}</math> + Line 4 x <math>\frac{2}{3}</math></i>	86.58%	13.42%	85.79%	14.21%
<i>Calendar Year 2013</i> <sup>8</sup>								
11	Jan-13	to	Dec-13	<i>Line 4 x <math>\frac{1}{3}</math> + Line 5 x <math>\frac{2}{3}</math></i>	86.52%	13.48%	86.01%	13.99%
<i>Calendar Year 2014</i> <sup>8</sup>								
12	Jan-14	to	Dec-14	<i>Line 5 x <math>\frac{1}{3}</math> + Line 6 x <math>\frac{2}{3}</math></i>	85.94%	14.06%	85.73%	14.27%
<i>Calendar Year 2015</i> <sup>8</sup>								
13	Jan-15	to	Dec-15	<i>Line 6 x <math>\frac{1}{3}</math> + Line 7 x <math>\frac{2}{3}</math></i>	86.05%	13.95%	85.29%	14.71%

## Notes:

- 1 Allocation Factors values from Docket No. E-2, Sub 951
- 2 Allocation Factors values from Docket No. E-2, Sub 977
- 3 Allocation Factors values from Docket No. E-2, Sub 1002
- 4 Allocation Factors values from Docket No. E-2, Sub 1019
- 5 Allocation Factors values from Docket No. E-2, Sub 1030
- 6 Allocation Factors values from Docket No. E-2, Sub 1044
- 7 Allocation Factors values from Docket No. E-2, Sub 1073
- 8 Employed in the allocation of Utility Cost Test (UCT) results for PPI determination.

Duke Energy Progress, LLC  
Allocation Factor For Year 2016  
Docket Number 2018-xx-E  
Allocation Factors from 2016 Filed Cost of Service Study

			MWh		
Line	New Mechanism Sales Allocator at Generator				
1	NC Retail MWh Sales Allocation	Company Records	38,844,803		
2	SC Retail MWh Sales Allocation	Company Records	6,620,461		
3	Total Retail	Line 1 + Line 2	45,465,264		
Allocation 1 to state based on kWh sales					
4	SC Retail	Line 2 / Line 3	14.5615796%		
Demand Allocators (kW)					
			NC	SC	Total
5	Residential	Company Records	3,530,456	484,305	4,014,761
6	Non Residential	Company Records	4,003,521	724,998	4,728,519
7	Total	Line 5 + Line 6	7,533,977	1,209,303	8,743,280
Allocation 2 to state based on peak demand					
8	SC Retail	Line 7, SC / Line 7 Total	13.8312281%		
Allocation 3 SC res vs non-res Peak Demand to retail system peak					
9	SC Residential	Line 5 SC/ Line 7 Total	5.5391684%		
10	SC Non-residential	Line 6 SC/ Line 7 Total	8.2920597%		

Duke Energy Progress, LLC  
Allocation Factor For Year 2017  
Docket Number 2018-xx-E  
Allocation Factors from 2017 Filed Cost of Service Study

			<u>MWh</u>		
Line	New Mechanism Sales Allocator at Generator				
1	NC Retail MWh Sales Allocation	Company Records	38,923,501		
2	SC Retail MWh Sales Allocation	Company Records	<u>6,596,650</u>		
3	Total Retail	Line 1 + Line 2	45,520,151		
Allocation 1 to state based on kWh sales					
4	SC Retail	Line 2 / Line 3	<div>14.4917132%</div>		
Demand Allocators (kW)			NC	SC	Total
			<hr/>		
5	Residential	Company Records	3,743,750	509,212	4,252,962
6	Non Residential	Company Records	4,012,019	736,825	4,748,844
7	Total	Line 5 + Line 6	<u>7,755,769</u>	<u>1,246,037</u>	<u>9,001,806</u>
Allocation 2 to state based on peak demand					
8	SC Retail	Line 7, SC / Line 7 Total	<div>13.8420755%</div>		
Allocation 3 SC res vs non-res Peak Demand to retail system peak					
9	SC Residential	Line 5 SC/ Line 7 Total	<div>5.6567750%</div>		
10	SC Non-residential	Line 6 SC/ Line 7 Total	<div>8.1853005%</div>		

Duke Energy Progress, LLC  
Allocation Factor For Year 2018  
Estimated Allocation Factor for Year 2019  
Docket Number 2018-xx-E  
Allocation Factors from 2018 Filed Cost of Service Study

			MWh		
Line	New Mechanism Sales Allocator at Generator				
1	NC Retail MWh Sales Allocation	Company Records	38,153,842		
2	SC Retail MWh Sales Allocation	Company Records	6,438,789		
3	Total Retail	Line 1 + Line 2	44,592,632		
Allocation 1 to state based on kWh sales					
4	SC Retail	Line 2 / Line 3	14.4391322%		
Demand Allocators (kW)			NC	SC	Total
5	Residential	Company Records	3,699,632	487,425	4,187,058
6	Non Residential	Company Records	3,915,717	698,002	4,613,719
7	Total	Line 5 + Line 6	7,615,350	1,185,427	8,800,777
Allocation 2 to state based on peak demand					
8	SC Retail	Line 7, SC / Line 7 Total	13.4695760%		
Allocation 3 SC res vs non-res Peak Demand to retail system peak					
9	SC Residential	Line 5 SC/ Line 7 Total	5.5384366%		
10	SC Non-residential	Line 6 SC/ Line 7 Total	7.9311394%		

NOTE: These allocation factors are used for vintages 2018-2019 based on the most recently filed Cost of Service Study (May 2018)

**DUKE ENERGY PROGRESS, LLC**  
**Docket No. 2018-XX-E**  
**Energy Allocation Factors - Applicable to EE Program Costs**

**South Carolina Rate Class Energy Allocation Factors**

Rate Class	Total SC Rate Class Sales (MWh) <sup>(1)</sup>	Opt-Out Sales <sup>(2)</sup>	Adjusted SC Rate Class MWh Sales	Rate Class Energy Allocation Factor
	(1)	(2)	(3) = (1) - (2)	(4) = (3) / SC Total in Column 3
Residential	2,275,569	-	2,275,569	58.26%
General Service	4,264,268	(2,724,458)	1,539,810	39.42%
Lighting	94,709	(4,232)	90,477	2.32%
SC Retail	6,634,546	2,729,256	3,905,856	100.00%

NOTES:

(1) Total SC Rate Class Sales (MWh) are for the forecasted year ended December 2019.

(2) Opt-Out sales are provided in Exhibit 6

**DUKE ENERGY PROGRESS, LLC**  
**Docket No. 2018-XX-E**  
**Demand Allocation Factors - Applicable to DSM Programs**

**South Carolina Rate Class Demand Allocation Factors**

Rate Class	Total SC Rate Class Sales <sup>(1)</sup>	Sales Subject to Opt-Out <sup>(2)</sup>	Rate Class Demand <sup>(3)</sup>	Revised Rate Class Demand	Rate Class Allocation Factor  <small>(5) = (4)/Total of Column 4</small>
	(1)	(2)	(3)	(4) = ((1 - 2) / 1) * 3	
Residential	2,275,569	-	487,425	487,425	66.02%
General Service	4,264,268	2,731,284	698,002	250,928	33.98%
Lighting	94,709	4,225	-	-	0.00%
SC Retail	6,634,546	2,735,509	1,185,427	738,354	100.00%

NOTES:

(1) Total SC Rate Class Sales (MWh) are for the forecasted year ended December 2019.

(2) Opt-Out sales are provided in Exhibit 6

(3) The CP demands are based on the 2017 Coincident Peak occurring on July 13, 2017 during the hour ended at 1700 EDT.



Exhibit 6

**Duke Energy Progress, LLC  
DSM/EE Cost Recovery Rider 10  
Docket Number 2018-xx-E  
Forecasted 2019 kWh Sales  
Estimated 2019 Opt out kWh based on 2017 actuals**

Spring 2018 Sales Forecast - kWhs		Total 2019	
South Carolina Retail:			
Line			
1	Residential	2,275,569,267	
2	General Service - EE	4,264,267,806	
3	Lighting	94,708,623	
4	Total Retail	<u>6,634,545,696</u>	
<u>Non-Residential</u>		<u>Gross kWh</u>	<u>Opt Outs</u>
			<u>Net kWh</u>
5	Energy Efficiency	4,264,267,806	(2,724,458,184)
6	DSM	4,264,267,806	(2,731,283,796)
7	Lighting - EE	94,708,623	(4,231,762)
8	Lighting - DSM	94,708,623	(4,224,826)

Duke Energy Progress  
Exhibit 7  
Vintage 2015 True Up - January 1, 2015 to December 31, 2015  
Docket XXX  
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H			
				=(A-B)*C	= (B+D)			=O (from page 2)			
Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(2)</sup>	SC Retail kWh Sales Allocation Factor	SC Residential Unadjusted Revenue Requirement (2)	Adjusted Revenue Requirement (EMF) (Under)/Over Collected	
EE Programs											
1 Appliance Recycling Program	566	4,407,053	\$ 1,508,567	\$ 1,219,750	13.00%	\$ 37,546	\$ 1,257,296	14.7100000%	E1 * F1	\$ 184,948	\$ -
2 Energy Education Program for Schools	1,102	2,602,999	\$ 1,576,241	\$ 703,591	0.00%	\$ -	\$ 703,591	14.7100000%	E2 * F2	\$ 103,498	\$ -
3 Energy Efficient Lighting	8,839	61,303,976	\$ 35,910,710	\$ 14,612,619	13.00%	\$ 2,768,752	\$ 17,381,371	14.7100000%	E3 * F3	\$ 2,556,800	\$ -
4 Home Energy Improvement Program	1,911	6,086,957	\$ 6,858,804	\$ 5,294,395	13.00%	\$ 203,373	\$ 5,497,768	14.7100000%	E4 * F4	\$ 808,722	\$ -
5 Multi-Family	2,112	17,949,005	\$ 9,816,135	\$ 2,615,745	13.00%	\$ 936,051	\$ 3,551,795	14.7100000%	E5 * F5	\$ 522,469	\$ (6,182)
6 Neighborhood Energy Saver	315	2,067,494	\$ 1,134,613	\$ 1,579,671	0.00%	\$ -	\$ 1,579,671	14.7100000%	E6 * F6	\$ 232,370	\$ -
7 Residential New Construction	2,828	6,607,792	\$ 12,081,218	\$ 7,441,832	13.00%	\$ 603,120	\$ 8,044,952	14.7100000%	E7 * F7	\$ 1,183,412	\$ (6,171)
8 Home Depot CFL	-	-	\$ -	\$ -	13.00%	\$ -	\$ -	14.7100000%	E7 * F7	\$ -	\$ -
9 Save Energy and Water Kit	-	-	\$ -	\$ -	13.00%	\$ -	\$ -	14.7100000%	E8 * F8	\$ -	\$ -
10 Residential Home Advantage	-	-	\$ -	\$ -	13.00%	\$ -	\$ -	14.7100000%		\$ -	\$ -
11 Total for Residential Conservation Programs	17,673	101,025,275	\$ 68,886,289	\$ 33,467,602		\$ 4,548,842	\$ 38,016,445			\$ 5,592,219	\$ (12,352)
12 My Home Energy Report	17,141	105,857,368	\$ 5,791,217	\$ 5,808,845	13.00%	\$ -	\$ 5,808,845	14.7100000%	E11 * F11	\$ 854,481	\$ 40,064
13 Total Residential Conservation and Behavioral Programs	34,814	206,882,643	\$ 74,677,506	\$ 39,276,448		\$ 4,548,842	\$ 43,825,290			\$ 6,446,700	\$ 27,712
								SC Residential Peak Demand Allocation Factor			
14 EnergyWise	28,015	-	\$ 32,617,641	\$ 5,204,195	8.00%	\$ 2,193,076	\$ 7,397,271	13.9533333%		\$ 1,032,166	\$ -
15 Total Residential	62,829	206,882,643	\$ 107,295,146	\$ 44,480,642		\$ 6,741,918	\$ 51,222,560			\$ 7,478,866	\$ 27,712
Non-Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement (2)	SC Retail kWh Sales Allocation Factor	SC Residential Unadjusted Revenue Requirement (2)	Adjusted Revenue Requirement (EMF)	
EE Programs											
16 Business Energy Report	-	-	\$ -	\$ 73,518	13.00%	\$ -	\$ 73,518	14.7100000%	E13 * F13	\$ 10,815	\$ -
17 Energy Efficiency for Business	4,829	57,365,602	\$ 29,902,372	\$ 6,220,063	13.00%	\$ 3,078,700	\$ 9,298,763	14.7100000%	E14 * F14	\$ 1,367,848	\$ -
18 Energy Efficient Lighting	4,172	19,250,609	\$ 11,551,470	\$ 1,775,531	13.00%	\$ 1,270,872	\$ 3,046,403	14.7100000%	E16 * F16	\$ 448,126	\$ -
19 Small Business Energy Saver	6,829	42,318,074	\$ 25,239,036	\$ 9,779,593	13.00%	\$ 2,009,728	\$ 11,789,321	14.7100000%	E17 * F17	\$ 1,734,209	\$ -
20 Total for Non-Residential Conservation Programs	15,830	118,934,285	\$ 66,692,877	\$ 17,848,706		\$ 6,359,300	\$ 24,208,005			\$ 3,560,998	\$ -
21 EnergyWise for Business	-	-	\$ -	\$ 64,145	8.00%	\$ -	\$ 64,145	13.9533333%	E19 * F19	\$ 8,950	\$ -
22 Commercial, Industrial, & Governmental Demand Response	894	-	\$ 1,025,439	\$ 569,290	8.00%	\$ 36,492	\$ 605,782	13.9533333%	E20 * F20	\$ 84,527	\$ -
23 Total for Non-Residential DSM Programs	894	-	\$ 1,025,439	\$ 633,435		\$ 36,492	\$ 669,926	13.9533333%		\$ 93,477	\$ -
24 Total Non Residential	16,725	118,934,285	\$ 67,718,316	\$ 18,482,140		\$ 6,395,792	\$ 24,877,932			\$ 3,654,475	\$ -
25 Total All Programs	79,554	325,816,928	\$ 175,013,463	\$ 62,962,783		\$ 13,137,710	\$ 76,100,492			\$ 11,133,341	\$ 27,712
(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages											
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak											
26 DSDR	315,673	41,988,428		7,999,427			\$ 7,999,427				
27 Total with DSDR	395,226	367,805,357	\$ 175,013,463	\$ 70,962,210		\$ 13,137,710	\$ 84,099,920		\$ 11,133,341	\$ 27,712	

Duke Energy Progress  
Exhibit 7  
Vintage 2015 True Up - January 1, 2015 to December 31, 2015  
Docket XXX  
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C =A*B	D =A+C	E	F	G =PMT(E,F,D)	H =1-B	I	J	K =J-I	L	M =L*K	N =M*L*E	O =M+N										
	SC Incentive	Income Tax Rate	Income Taxes	Net-of-Tax PPI - Total NPV	Discount Rate	PPI Amortization Period	Vintage Year 2015 - Year 1 PPI	Income Tax Gross-Up Factor	Adjusted PPI	Original Vintage 2015 PPI	PPI Over / (Under) Collection	Years at Original PPI Level	Cumulative PPI Over / (Under) Collection	Carrying Costs	PPI Over/(Under) Collection w/CCost	Σ Prior Period PPI	Vintage 2009 PPI	Vintage 2010 PPI	Vintage 2011 PPI	Vintage 2012 PPI	Vintage 2013 PPI	Vintage 2014 PPI	PPI Values for Test Period		
Residential Programs																									
EE Programs																									
1 Appliance Recycling Program	\$ 5,523	38.16%	\$ (2,108)	\$ 3,415	8.90%	10	\$ 530	61.84%	\$ 857	\$ 857	\$ -	1	\$ -	\$ -	\$ -	\$ 17,951	\$ -	\$ 5,380	\$ 3,477	\$ 4,782	\$ 2,935	\$ 1,378	\$ 18,808		
2 Energy Education Program for Schools	\$ -	38.16%	\$ -	\$ -	8.90%	N/A	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
3 Energy Efficient Lighting	\$ 407,283	38.16%	\$ (155,420)	\$ 251,863	8.90%	10	\$ 39,079	61.84%	\$ 63,194	\$ 63,194	\$ -	1	\$ -	\$ -	\$ -	\$ 461,235	\$ -	\$ 94,447	\$ 86,665	\$ 97,403	\$ 109,693	\$ 73,027	\$ 524,429		
4 Home Energy Improvement Program	\$ 29,916	38.16%	\$ (11,416)	\$ 18,500	8.90%	10	\$ 2,870	61.84%	\$ 4,642	\$ 4,642	\$ -	1	\$ -	\$ -	\$ -	\$ 60,974	\$ 1,844	\$ 17,530	\$ 21,167	\$ 17,744	\$ -	\$ 2,690	\$ 65,616		
5 Multi-Family	\$ 137,693	38.16%	\$ (52,544)	\$ 85,149	8.90%	3	\$ 33,581	61.84%	\$ 54,303	\$ 48,626	\$ (5,676)	1	\$ (5,676)	\$ (505)	\$ (6,182)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,303		
6 Neighborhood Energy Saver	\$ -	38.16%	\$ -	\$ -	8.90%	N/A	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
7 Residential New Construction	\$ 88,719	38.16%	\$ (33,855)	\$ 54,864	8.90%	10	\$ 8,513	61.84%	\$ 13,766	\$ 8,099	\$ (5,666)	1	\$ (5,666)	\$ (504)	\$ (6,171)	\$ 18,258	\$ -	\$ -	\$ -	\$ -	\$ 8,208	\$ 10,050	\$ 32,023		
8 Home Depot CFL	\$ -	38.16%	\$ -	\$ -	8.90%	1	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ 10,473	\$ 10,473	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,473		
9 Save Energy and Water Kit	\$ -	38.16%	\$ -	\$ -	8.90%	3	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
10 Residential Home Advantage	\$ -	38.16%	\$ -	\$ -	8.90%	10	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ 28,759	\$ 1,421	\$ 5,257	\$ 12,043	\$ 10,037	\$ -	\$ -	\$ 28,759		
11 Total for Residential Conservation Programs	\$ 669,135		\$ (255,343)	\$ 413,792			\$ 84,573		\$ 136,761	\$ 125,419	\$ (11,343)		\$ (11,343)	\$ (1,010)	\$ (12,352)	\$ 597,650	\$ 13,738	\$ 122,614	\$ 123,352	\$ 129,965	\$ 120,836	\$ 87,145	\$ 734,411		
12 My Home Energy Report	\$ -	38.16%	\$ -	\$ -	8.90%	1	\$ -	61.84%	\$ -	\$ 36,788	\$ 36,788	1	\$ 36,788	\$ 3,275	\$ 40,064	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
13 Total Residential Conservation and Behavioral Programs	\$ 669,135		\$ (255,343)	\$ 413,792			\$ 84,573		\$ 136,761	\$ 162,207	\$ 25,445		\$ 25,445	\$ 2,266	\$ 27,711	\$ 597,650	\$ 13,738	\$ 122,614	\$ 123,352	\$ 129,965	\$ 120,836	\$ 87,145	\$ 734,411		
14 EnergyWise	\$ 306,007	38.16%	\$ (116,773)	\$ 189,234	8.90%	10	\$ 29,361	61.84%	\$ 47,480	\$ 47,480	\$ -	1	\$ -	\$ -	\$ -	\$ 446,940	\$ 21,414	\$ 133,740	\$ 134,840	\$ 40,586	\$ 49,709	\$ 66,651	\$ 494,420		
15 Total Residential	\$ 975,142		\$ (372,116)	\$ 603,026			\$ 113,934		\$ 184,241	\$ 209,687	\$ 25,445		\$ 25,445	\$ 2,266	\$ 27,711	\$ 1,044,590	\$ 35,152	\$ 256,354	\$ 258,192	\$ 170,551	\$ 170,545	\$ 153,796	\$ 1,228,831		
Non-Residential Programs																									
EE Programs																									
16 Business Energy Report	\$ -	38.16%	\$ -	\$ -	8.90%	1	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
17 Energy Efficiency for Business	\$ 452,877	38.16%	\$ (172,819)	\$ 280,058	8.90%	10	\$ 43,454	61.84%	\$ 70,268	\$ 70,268	\$ -	1	\$ -	\$ -	\$ -	\$ 532,691	\$ 27,282	\$ 78,191	\$ 110,576	\$ 119,215	\$ 116,862	\$ 80,566	\$ 602,960		
18 Energy Efficient Lighting	\$ 186,945	38.16%	\$ (71,339)	\$ 115,607	8.90%	10	\$ 17,937	61.84%	\$ 29,006	\$ 29,006	\$ -	1	\$ -	\$ -	\$ -	\$ 121,028	\$ -	\$ 23,309	\$ 20,870	\$ 25,901	\$ 29,621	\$ 21,328	\$ 150,034		
19 Small Business Energy Saver	\$ 295,631	38.16%	\$ (112,813)	\$ 182,818	8.90%	10	\$ 28,366	61.84%	\$ 45,870	\$ 45,870	\$ -	1	\$ -	\$ -	\$ -	\$ 53,794	\$ -	\$ -	\$ -	\$ -	\$ 13,901	\$ 39,893	\$ 99,664		
20 Total for Non-Residential Conservation Programs	\$ 935,453		\$ (356,971)	\$ 578,482			\$ 89,757		\$ 145,144	\$ 145,144	\$ -		\$ -	\$ -	\$ -	\$ 707,514	\$ 27,282	\$ 101,500	\$ 131,446	\$ 145,116	\$ 160,384	\$ 141,786	\$ 852,658		
21 EnergyWise for Business	\$ -	38.16%	\$ -	\$ -	8.90%	10	\$ -	61.84%	\$ -	\$ -	\$ -	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
22 Commercial, Industrial, & Governmental Demand Response	\$ 5,092	38.16%	\$ (1,943)	\$ 3,149	8.90%	10	\$ 489	61.84%	\$ 790	\$ 790	\$ -	1	\$ -	\$ -	\$ -	\$ 24,704	\$ -	\$ 10,743	\$ 4,625	\$ 3,199	\$ 1,602	\$ 4,535	\$ 25,494		
23 Total for Non-Residential DSM Programs	\$ 5,092		\$ (1,943)	\$ 3,149			\$ 489		\$ 790	\$ 790	\$ -		\$ -	\$ -	\$ -	\$ 24,704	\$ -	\$ 10,743	\$ 4,625	\$ 3,199	\$ 1,602	\$ 4,535	\$ 25,494		
24 Total Non Residential	\$ 940,545		\$ (358,914)	\$ 581,631			\$ 90,246		\$ 145,935	\$ 145,935	\$ -		\$ -	\$ -	\$ -	\$ 732,218	\$ 27,282	\$ 112,243	\$ 136,071	\$ 148,316	\$ 161,986	\$ 146,321	\$ 878,152		
25 Total All Programs	\$ 1,915,687		\$ (731,030)	\$ 1,184,657			\$ 204,180		\$ 330,176	\$ 355,621	\$ 25,445		\$ 25,445	\$ 2,266	\$ 27,711	\$ 1,776,808	\$ 62,434	\$ 368,596	\$ 394,263	\$ 318,867	\$ 332,531	\$ 300,117	\$ 2,106,984		

(1) Energy Efficient Benchmarking impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages  
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

Duke Energy Progress  
Exhibit 7  
Vintage 2016 True Up - January 1, 2016 to December 31, 2016  
Docket XXX  
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H	I		
				=(A-B)*C	= (B+D)				= O (from page 2)		
	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(1)</sup>				
Residential Programs								SC Residential Unadjusted Revenue Requirement (2)	SC Residential Adjusted Revenue Requirement (Under)/Over Collected		
EE Programs											
1 Appliance Recycling Program	27	206,569	\$ 75,967	\$ (136,970)	11.75%	\$ 25,020	\$ (111,950)	14.5615796%	E1 * F1	\$ (16,302)	\$ -
2 Energy Education Program for Schools	1,081	2,553,617	\$ 1,683,199	\$ 825,794	0.00%	\$ -	\$ 825,794	14.5615796%	E2 * F2	\$ 120,249	\$ -
3 Energy Efficient Lighting	6,006	41,649,479	\$ 33,900,924	\$ 15,516,690	11.75%	\$ 2,160,147	\$ 17,676,838	14.5615796%	E3 * F3	\$ 2,574,027	\$ -
4 Home Energy Improvement Program	1,904	6,289,383	\$ 6,972,005	\$ 5,998,375	11.75%	\$ 114,402	\$ 6,112,777	14.5615796%	E4 * F4	\$ 890,117	\$ 8
5 Multi-Family	1,480	12,462,490	\$ 7,305,693	\$ 2,039,856	11.75%	\$ 618,736	\$ 2,658,592	14.5615796%	E5 * F5	\$ 387,133	\$ (3,588)
6 Neighborhood Energy Saver	304	1,992,091	\$ 1,170,879	\$ 2,041,134	0.00%	\$ -	\$ 2,041,134	14.5615796%	E6 * F6	\$ 297,221	\$ -
7 Residential Energy Assessments	692	4,141,847	\$ 3,790,119	\$ 1,414,281	11.75%	\$ 279,161	\$ 1,693,442	14.5615796%	E7 * F7	\$ 246,592	\$ -
8 Residential New Construction	4,703	10,959,146	\$ 21,025,104	\$ 9,381,404	11.75%	\$ 1,368,135	\$ 10,749,539	14.5615796%	E8 * F8	\$ 1,565,303	\$ 1,786
9 Home Depot CFL	-	-	\$ -	\$ -	11.75%	\$ -	\$ -	14.5615796%	E9 * F9	\$ -	\$ -
10 Save Energy and Water Kit	5,914	17,671,857	\$ 13,836,747	\$ 673,150	11.75%	\$ 1,546,723	\$ 2,219,873	14.5615796%	E10 * F10	\$ 323,249	\$ (28,828)
11 Residential Home Advantage	-	-	\$ -	\$ -	11.75%	\$ -	\$ -	14.5615796%	E11 * F11	\$ -	\$ -
12 Total for Residential Conservation Programs	22,110	97,926,479	89,760,637	37,753,714		\$ 6,112,323	\$ 43,866,038			\$ 6,387,589	\$ (30,623)
13 My Home Energy Report	16,905	102,921,181	\$ 7,805,252	\$ 5,877,786	11.75%	\$ 226,477	\$ 6,104,263	14.5615796%	E13 * F13	\$ 888,877	\$ 52,346
14 Total Residential Conservation and Behavioral Programs	39,015	200,847,659	\$ 97,565,889	\$ 43,631,501		\$ 6,338,801	\$ 49,970,301			\$ 7,276,466	\$ 21,723
								SC Residential Peak Demand Allocation Factor	SC Allocation Factor (2)		
15 EnergyWise	34,059	-	\$ 70,854,171	\$ 6,800,534	11.75%	\$ 7,526,302	\$ 14,326,836	13.8312281%	40.0482757% (E15+E24) *F15*G15	\$ 849,262	\$ -
16 Total Residential	73,074	200,847,659	\$ 168,420,060	\$ 50,432,035		\$ 13,865,103	\$ 64,297,137			\$ 8,125,728	\$ 21,723
Non-Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement (2)			SC Non-Residential Unadjusted Revenue Requirement (2)	SC Non-Residential Adjusted Revenue Requirement
EE Programs											
17 Business Energy Report	740	4,546,814	\$ 308,351	\$ 69,211		\$ -	\$ 69,211	14.5615796%	E16 * F16	\$ 10,078	\$ -
18 Energy Efficiency for Business	10,201	71,154,719	\$ 47,731,790	\$ 14,122,010	11.75%	\$ 3,949,149	\$ 18,071,159	14.5615796%	E17 * F17	\$ 2,631,446	\$ 49
19 Energy Efficient Lighting	2,818	12,180,303	\$ 10,838,755	\$ 1,885,382	11.75%	\$ 1,052,021	\$ 2,937,403	14.5615796%	E18 * F18	\$ 427,732	\$ -
20 Small Business Energy Saver	8,675	49,979,294	\$ 32,878,199	\$ 9,316,875	11.75%	\$ 2,768,455	\$ 12,085,331	14.5615796%	E19 * F19	\$ 1,759,815	\$ 1,601
21 Total for Non-Residential Conservation Programs	22,434	137,861,130	\$ 91,757,094	\$ 25,393,478		\$ 7,769,626	\$ 33,163,104			\$ 4,829,071	\$ 1,650
22 EnergyWise for Business	1,059	412,047	\$ 235,442	\$ 1,107,571	11.75%	\$ (102,475)	\$ 1,005,096	13.8312281%	H24 * G22	\$ 1,271,333	\$ 11,028
23 Commercial, Industrial, & Governmental Demand Response	(5,344)	-	\$ (10,684,733)	\$ -	11.75%	\$ -	\$ -	13.8312281%	H24 * G23	\$ -	\$ -
24 Total for Non-Residential DSM Programs	(4,285)	412,047	\$ (10,449,291)	\$ 1,107,571		\$ (102,475)	\$ 1,005,096	13.8312281%	(E15+E24) *F24 *G24	\$ 1,271,333	\$ 11,028
25 Total Non Residential	18,149	138,273,177	\$ 81,307,803	\$ 26,501,049		\$ 7,667,151	\$ 34,168,200			\$ 6,100,404	\$ 12,678
26 Total All Programs	91,223	339,120,836	\$ 249,727,862	\$ 76,933,084		\$ 21,532,254	\$ 98,465,338			\$ 14,226,132	\$ 34,401
(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages											
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak											
24 DSDR	281,372	33,941,086		7,944,728			\$ 7,944,728				
25 Total with DSDR	372,595	373,061,922	\$ 249,727,862	\$ 84,877,812		\$ 21,532,254	\$ 106,410,065			\$ 14,226,132	\$ 34,401

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Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H	I	J	K	L	M	N		P									K
			=A*B	=A+C			=PMT(E,F,D)	=1-B		=J-I			=I*K	=M*L*E		=M+N									=J+I
													</												

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Load Impacts and Estimated Revenue Requirements by Program

	A	B	C	D	E	F	G	H	I			
				=(A-B)*C	= (B+D)				=K (from page 2)			
Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(1)</sup>	SC Retail kWh Sales Allocation Factor	SC Allocation Factor (2)	SC Residential Unadjusted Revenue Requirement (2)	SC Residential Adjusted Revenue Requirement	
EE Programs												
1 Appliance Recycling Program	-	-	\$ -	\$ 5,564	11.75%	\$ (654)	\$ 4,911	14.4917132%	E1 * F1	\$ 712	\$ 20,210	
2 Energy Education Program for Schools	996	2,353,765	\$ 1,630,711	\$ 833,667		\$ -	\$ 833,667	14.4917132%	E2 * F2	\$ 120,813	\$ -	
3 Energy Efficient Lighting	4,314	29,913,877	\$ 34,195,705	\$ 10,878,606	11.75%	\$ 2,739,759	\$ 13,618,365	14.4917132%	E3 * F3	\$ 1,973,534	\$ 798,494	
4 Home Energy Improvement Program	1,975	7,357,987	\$ 7,508,572	\$ 6,943,336	11.75%	\$ 66,415	\$ 7,009,751	14.4917132%	E4 * F4	\$ 1,015,833	\$ 75,824	
5 Multi-Family	2,192	16,150,507	\$ 12,520,784	\$ 2,508,522	11.75%	\$ 1,176,441	\$ 3,684,963	14.4917132%	E5 * F5	\$ 534,014	\$ 154,243	
6 Neighborhood Energy Saver	335	2,200,240	\$ 1,370,359	\$ 1,770,184		\$ -	\$ 1,770,184	14.4917132%	E6 * F6	\$ 256,530	\$ -	
7 Residential Energy Assessments	910	5,447,736	\$ 5,225,230	\$ 1,858,160	11.75%	\$ 395,631	\$ 2,253,791	14.4917132%	E7 * F7	\$ 326,613	\$ 37,693	
8 Residential New Construction	6,022	13,996,035	\$ 27,939,299	\$ 11,641,019	11.75%	\$ 1,915,048	\$ 13,556,067	14.4917132%	E8 * F8	\$ 1,964,506	\$ 215,445	
9 Home Depot CFL	-	-	\$ -	\$ -		\$ -	\$ -	14.4917132%	E9 * F9	\$ -	\$ 10,473	
10 Save Energy and Water Kit	8,377	25,021,451	\$ 20,607,685	\$ 886,907	11.75%	\$ 2,317,191	\$ 3,204,098	14.4917132%	E10 * F10	\$ 464,329	\$ 215,694	
11 Residential Home Advantage	-	-	\$ -	\$ -	11.75%	\$ -	\$ -	14.4917132%	E11 * F11	\$ -	\$ 28,759	
12 Total for Residential Conservation Programs	25,121	102,441,597	\$ 110,998,344	\$ 37,325,963		\$ 8,609,832	\$ 45,935,794			\$ 6,656,884	\$ 1,556,835	
13 My Home Energy Report	19,964	117,851,515	\$ 8,542,360	\$ 6,737,747	11.75%	\$ 212,042	\$ 6,949,789	14.4917132%	E13 * F13	\$ 1,007,144	\$ 30,729	
14 Total Residential Conservation and Behavioral Programs	45,085	220,293,112	\$ 119,540,704	\$ 44,063,710		\$ 8,821,874	\$ 52,885,583			\$ 7,664,028	\$ 1,587,563	
SC Residential Peak Demand Allocation Factor SC Allocation Factor (2)												
15 EnergyWise	33,428	-	\$ 70,225,320	\$ 6,502,032	11.75%	\$ 7,487,486	\$ 13,989,518	13.8420755%	40.8682159%	(E15+E24) *F15*G15	\$ 966,232	\$ 1,296,586
16 Total Residential	78,513	220,293,112	\$ 189,766,024	\$ 50,565,742		\$ 16,309,360	\$ 66,875,102			\$ 8,630,260	\$ 2,884,149	
Non-Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	System Revenue Requirement	SC Retail kWh Sales Allocation Factor		SC Non-Residential Unadjusted Revenue Requirement (2)	SC Non-Residential Adjusted Revenue Requirement	
EE Programs												
17 Business Energy Report	-	-	\$ 883	\$ 20,281	11.75%	\$ (2,279)	\$ 18,002	14.4917132%	E16 * F16	\$ 2,609	\$ (330)	
18 Energy Efficiency for Business	16,958	103,103,354	\$ 94,915,714	\$ 21,690,021	11.75%	\$ 8,604,019	\$ 30,294,040	14.4917132%	E17 * F17	\$ 4,390,125	\$ 1,300,789	
19 Energy Efficient Lighting	2,024	7,877,874	\$ 10,661,023	\$ 1,321,823	11.75%	\$ 1,097,356	\$ 2,419,179	14.4917132%	E18 * F18	\$ 350,581	\$ 270,538	
20 Non-Res SmartSaver Performance	58	435,108	\$ 402,670	\$ 144,855	11.75%	\$ 30,293	\$ 175,149	14.4917132%	E18 * F18	\$ 25,382	\$ 1,658	
21 Small Business Energy Saver	9,600	48,044,115	\$ 35,473,340	\$ 8,751,334	11.75%	\$ 3,139,836	\$ 11,891,170	14.4917132%	E19 * F19	\$ 1,723,234	\$ 430,575	
22 Total for Non-Residential Conservation Programs	28,640	159,460,452	\$ 141,453,630	\$ 31,928,315		\$ 12,869,225	\$ 44,797,539			\$ 6,491,931	\$ 2,003,230	
23 EnergyWise for Business	6,461	983,712	\$ 1,460,548	\$ 1,384,307	11.75%	\$ 8,958	\$ 1,393,265	13.8420755%	45.0785733%	H24 * G22	\$ 630,212	\$ 1,321
24 Commercial, Industrial, & Governmental Demand Response	1,969	-	\$ 3,979,458	\$ 1,393,650	11.75%	\$ 303,832	\$ 1,697,483	13.8420755%	54.9214267%	H24 * G23	\$ 767,819	\$ 41,379
25 Total for Non-Residential DSM Programs	8,430	983,712	\$ 5,440,006	\$ 2,777,957		\$ 312,791	\$ 3,090,748	13.8420755%	59.1317841%	(E15+E24) *F24 *G24	\$ 1,398,031	\$ 42,700
26 Total Non Residential	37,070	160,444,163	\$ 146,893,636	\$ 34,706,272		\$ 13,182,015	\$ 47,888,287			\$ 7,889,962	\$ 2,045,931	
27 Total All Programs	115,583	380,737,275	\$ 336,659,660	\$ 85,272,013		\$ 29,491,375	\$ 114,763,389			\$ 16,520,222	\$ 4,930,080	
(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages												
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak												
28 DSDR	334,505	35,518,685		11,146,179			\$ 11,146,179					
29 Total with DSDR	450,088	416,255,960	\$ 336,659,660	\$ 96,418,192		\$ 29,491,375	\$ 125,909,568			\$ 16,520,222	\$ 4,930,080	

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Load Impacts and Estimated Revenue Requirements by Program

	A	B	C =A*B	D =A+C	E	F	G =-PMT(E,F,D)	H =1-B	I	J									K =J+I
	SC Incentive	Income Tax Rate	Income Taxes	Net-of-Tax PPI - Total NPV	Discount Rate	PPI Amortization Period	Vintage Year 2017 - Year 1 PPI	Income Tax Gross-Up Factor	Adjusted PPI	Σ Prior Period PPI	Vintage 2009 PPI	Vintage 2010 PPI	Vintage 2011 PPI	Vintage 2012 PPI	Vintage 2013 PPI	Vintage 2014 PPI	Vintage 2015 PPI	Vintage 2016 PPI	PPI Values for Test Period
Residential Programs																			
EE Programs																			
1 Appliance Recycling Program	\$ (95)	37.06%	\$ 35	\$ (60)	6.52%	3	\$ (23)	62.94%	\$ (36)	\$ 20,246	\$ -	\$ 5,380	\$ 3,477	\$ 4,782	\$ 2,935	\$ 1,378	\$ 857	\$ 1,437	\$ 20,210
2 Energy Education Program for Schools	\$ -	37.06%	\$ -	\$ -	6.52%	N/A	\$ -	62.94%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3 Energy Efficient Lighting	\$ 397,038	37.06%	\$ (147,142)	\$ 249,896	6.52%	3	\$ 94,387	62.94%	\$ 149,963	\$ 648,531	\$ -	\$ 94,447	\$ 86,665	\$ 97,403	\$ 109,693	\$ 73,027	\$ 63,194	\$ 124,102	\$ 798,494
4 Home Energy Improvement Program	\$ 9,625	37.06%	\$ (3,567)	\$ 6,058	6.52%	3	\$ 2,288	62.94%	\$ 3,635	\$ 72,189	\$ 1,844	\$ 17,530	\$ 21,167	\$ 17,744	\$ 0	\$ 2,690	\$ 4,642	\$ 6,572	\$ 75,824
5 Multi-Family	\$ 170,486	37.06%	\$ (63,182)	\$ 107,304	6.52%	3	\$ 40,529	62.94%	\$ 64,393	\$ 89,850	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,303	\$ 35,547	\$ 154,243
6 Neighborhood Energy Saver	\$ -	37.06%	\$ -	\$ -	6.52%	N/A	\$ -	62.94%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7 Residential Energy Assessments	\$ 57,334	37.06%	\$ (21,248)	\$ 36,086	6.52%	3	\$ 13,630	62.94%	\$ 21,655	\$ 16,038	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,038	\$ 37,693
8 Residential New Construction	\$ 277,523	37.06%	\$ (102,850)	\$ 174,673	6.52%	3	\$ 65,975	62.94%	\$ 104,822	\$ 110,624	\$ -	\$ -	\$ -	\$ -	\$ 8,208	\$ 10,050	\$ 13,766	\$ 78,600	\$ 215,445
9 Home Depot CFL	\$ -	37.06%	\$ -	\$ -	6.52%	3	\$ -	62.94%	\$ -	\$ 10,473	\$ 10,473	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,473
10 Save Energy and Water Kit	\$ 335,801	37.06%	\$ (124,447)	\$ 211,353	6.52%	3	\$ 79,829	62.94%	\$ 126,833	\$ 88,860	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 88,860	\$ 215,694
11 Residential Home Advantage	\$ -	37.06%	\$ -	\$ -	6.52%	3	\$ -	62.94%	\$ -	\$ 28,759	\$ 1,421	\$ 5,257	\$ 12,043	\$ 10,037	\$ -	\$ -	\$ -	\$ -	\$ 28,759
12 Total for Residential Conservation Programs	\$ 1,247,712		\$ (462,401)	\$ 785,311			\$ 296,615		\$ 471,266	\$ 1,085,568	\$ 13,738	\$ 122,614	\$ 123,352	\$ 129,965	\$ 120,836	\$ 87,145	\$ 136,761	\$ 351,157	\$ 1,556,835
13 My Home Energy Report	\$ 30,729	37.06%	\$ (11,388)	\$ 19,341	6.52%	1	\$ 19,341	62.94%	\$ 30,729	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,729
14 Total Residential Conservation and Behavioral Programs	\$ 1,278,441		\$ (473,789)	\$ 804,652			\$ 315,956		\$ 501,995	\$ 1,085,568	\$ 13,738	\$ 122,614	\$ 123,352	\$ 129,965	\$ 120,836	\$ 87,145	\$ 136,761	\$ 351,157	\$ 1,587,563
15 EnergyWise	\$ 1,036,424	37.06%	\$ (384,098)	\$ 652,326	6.52%	3	\$ 246,386	62.94%	\$ 391,462	\$ 905,124	\$ 21,414	\$ 133,740	\$ 134,840	\$ 40,586	\$ 49,709	\$ 66,651	\$ 47,480	\$ 410,704	\$ 1,296,586
16 Total Residential	\$ 2,314,864		\$ (857,886)	\$ 1,456,978			\$ 562,342		\$ 893,456	\$ 1,990,693	\$ 35,152	\$ 256,354	\$ 258,192	\$ 170,551	\$ 170,545	\$ 153,796	\$ 184,241	\$ 761,861	\$ 2,884,149
	SC Incentive	Income Tax Rate	Income Taxes	Net-of-Tax PPI - Total NPV	Discount Rate	PPI Amortization Period	Vintage Year 2016 - Year 1 PPI	Income Tax Gross-Up Factor	Adjusted PPI	Σ Prior Period PPI	Vintage 2009 PPI	Vintage 2010 PPI	Vintage 2011 PPI	Vintage 2012 PPI	Vintage 2013 PPI	Vintage 2014 PPI	Vintage 2015 PPI	Vintage 2016 PPI	PPI Values for Test Period
Non-Residential Programs																			
EE Programs																			
17 Business Energy Report	\$ (330)	37.06%	\$ 122	\$ (208)	6.52%	1	\$ (208)	62.94%	\$ (330)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (330)
18 Energy Efficiency for Business	\$ 1,246,870	37.06%	\$ (462,089)	\$ 784,781	6.52%	3	\$ 296,415	62.94%	\$ 470,948	\$ 829,841	\$ 27,282	\$ 78,191	\$ 110,576	\$ 119,215	\$ 116,862	\$ 80,566	\$ 70,268	\$ 226,881	\$ 1,300,789
19 Energy Efficient Lighting	\$ 159,026	37.06%	\$ (58,935)	\$ 100,091	6.52%	3	\$ 37,805	62.94%	\$ 60,065	\$ 210,474	\$ -	\$ 23,309	\$ 20,870	\$ 25,901	\$ 29,621	\$ 21,328	\$ 29,006	\$ 60,439	\$ 270,538
20 Non-Res SmartSaver Performance	\$ 4,390	37.06%	\$ (1,627)	\$ 2,763	6.52%	3	\$ 1,044	62.94%	\$ 1,658	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,658
21 Small Business Energy Saver	\$ 455,016	37.06%	\$ (168,628)	\$ 286,388	6.52%	3	\$ 108,170	62.94%	\$ 171,861	\$ 258,714	\$ -	\$ -	\$ -	\$ -	\$ 13,901	\$ 39,893	\$ 45,870	\$ 159,050	\$ 430,575
22 Total for Non-Residential Conservation Programs	\$ 1,864,971		\$ (691,156)	\$ 1,173,815			\$ 443,225		\$ 704,202	\$ 1,299,028	\$ 27,282	\$ 101,500	\$ 131,446	\$ 145,116	\$ 160,384	\$ 141,786	\$ 145,144	\$ 446,370	\$ 2,003,230
23 EnergyWise for Business	\$ 1,240	37.06%	\$ (460)	\$ 780	6.52%	1	\$ 831	62.94%	\$ 1,321	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,321
24 Commercial, Industrial, & Governmental Demand Response	\$ 42,057	37.06%	\$ (15,586)	\$ 26,471	6.52%	3	\$ 9,998	62.94%	\$ 15,885	\$ 25,494	\$ -	\$ 10,743	\$ 4,625	\$ 3,199	\$ 1,602	\$ 4,535	\$ 790	\$ -	\$ 41,379
25 Total for Non-Residential DSM Programs	\$ 43,297		\$ (16,046)	\$ 27,251			\$ 10,829		\$ 17,206	\$ 25,494	\$ -	\$ 10,743	\$ 4,625	\$ 3,199	\$ 1,602	\$ 4,535	\$ 790	\$ -	\$ 42,700
26 Total Non Residential	\$ 1,908,268		\$ (707,202)	\$ 1,201,066			\$ 454,055		\$ 721,408	\$ 1,324,523	\$ 27,282	\$ 112,243	\$ 136,071	\$ 148,316	\$ 161,986	\$ 146,321	\$ 145,935	\$ 446,370	\$ 2,045,931
27 Total All Programs	\$ 4,223,132		\$ (1,565,088)	\$ 2,658,043			\$ 1,016,397		\$ 1,614,864	\$ 3,315,215	\$ 62,434	\$ 368,596	\$ 394,263	\$ 318,867	\$ 332,531	\$ 300,117	\$ 330,176	\$ 1,208,232	\$ 4,930,080
(1) Energy Efficient Benchmarking impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages																			
(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak																			

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	A	B	C	D	E	F	G	H	I			
				=(A-B)*C	= (B+D)				=K (from page 2)			
Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(2)</sup>	SC Retail kWh Sales Allocation Factor	SC Allocation Factor (2)	SC Residential Unadjusted Revenue Requirement <sup>(2)</sup>	NC Residential Adjusted Revenue Requirement	
EE Programs												
1 Appliance Recycling Program	-	-	-	-	11.75%	\$ -	\$ -	14.4391322%	E1 * F1	\$ -	\$ 20,240	
2 Energy Education Program for Schools	980	2,314,528	1,289,382	753,793	0.00%	\$ -	\$ 753,793	14.4391322%	E2 * F2	\$ 108,841	\$ -	
3 Energy Efficient Lighting	4,110	24,931,977	21,160,035	11,781,213	11.75%	\$ 1,102,012	\$ 12,883,224	14.4391322%	E3 * F3	\$ 1,860,226	\$ 849,803	
4 Home Energy Improvement	1,111	4,183,859	3,715,076	3,985,069	11.75%	\$ (31,724)	\$ 3,953,345	14.4391322%	E4 * F4	\$ 570,829	\$ 67,384	
5 Multi-Family	2,131	15,206,371	8,336,258	2,738,339	11.75%	\$ 657,755	\$ 3,396,095	14.4391322%	E5 * F5	\$ 490,367	\$ 208,205	
6 Neighborhood Energy Saver	326	2,135,101	942,439	2,028,200	0.00%	\$ -	\$ 2,028,200	14.4391322%	E6 * F6	\$ 292,854	\$ -	
7 Residential Energy Assessments	428	2,565,216	1,808,277	1,138,481	11.75%	\$ 78,701	\$ 1,217,182	14.4391322%	E7 * F7	\$ 175,750	\$ 36,972	
8 Residential New Construction	7,101	16,446,576	25,967,958	12,691,351	11.75%	\$ 1,560,001	\$ 14,251,352	14.4391322%	E8 * F8	\$ 2,057,772	\$ 351,967	
9 Residential Home Advantage	-	-	-	-	11.75%	\$ -	\$ -	14.4391322%	E9 * F9	\$ -	\$ 27,338	
10 Save Energy and Water Kit	8,915	30,940,131	19,771,306	1,527,511	11.75%	\$ 2,143,646	\$ 3,671,157	14.4391322%	E10 * F10	\$ 530,083	\$ 329,590	
11 Total for Residential Conservation Programs	25,101	98,723,759	82,990,733	36,643,956		\$ 5,510,391	\$ 42,154,348			\$ 6,086,722	1,891,497	
12 My Home Energy Report (1)	20,008	119,273,463	8,025,138	7,994,059	11.75%	\$ 3,652	\$ 7,997,711	14.4391322%	E12 * F12	\$ 1,154,800	\$ 527	
13 Total Residential Conservation and Behavioral Programs	45,109	217,997,222	\$ 91,015,871	\$ 44,638,015		\$ 5,514,043	\$ 50,152,059			\$ 7,241,522	\$ 1,892,025	
								SC Residential Peak Demand Allocation Factor				
14 EnergyWise ® Home	27,116	-	57,907,975	5,238,465	11.75%	\$ 6,188,667	\$ 11,427,133	13.4695760%	41.1181212%	(E14+E23) *F14 *G14	\$ 1,164,002	\$ 1,480,608
15 Total Residential	72,225	217,997,222	\$ 148,923,847	\$ 49,876,481		\$ 11,702,710	\$ 61,579,192			\$ 8,405,524	\$ 3,372,632	
Non-Residential Programs	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(2)</sup>	SC Retail kWh Sales Allocation Factor		SC Residential Unadjusted Revenue Requirement (2)	SC Non-Residential Adjusted Revenue Requirement	
EE Programs												
15 Business Energy Report	-	-	-	-	11.75%	\$ -	\$ -	14.4391322%	E15 * F15	\$ -	\$ (330)	
16 Energy Efficient Lighting	1,702	6,572,638	6,754,775	1,427,906	11.75%	\$ 625,907	\$ 2,053,813	14.4391322%	E16 * F16	\$ 296,553	\$ 293,270	
17 Non-Residential Smart Saver Performance (Custom)	1,584	13,879,016	6,621,515	2,719,960	11.75%	\$ 458,433	\$ 3,178,393	14.4391322%	E17 * F17	\$ 458,932	\$ 68,409	
18 Non-Residential Smart Saver Performance (Prescriptive)	7,337	48,474,009	27,850,368	11,408,405	11.75%	\$ 1,931,931	\$ 13,340,336	14.4391322%	E18 * F18	\$ 1,926,229	\$ 1,258,824	
19 Non-Residential Smart Saver Performance Incentive	751	6,576,526	3,137,583	845,910	11.75%	\$ 269,272	\$ 1,115,182	14.4391322%	E19 * F19	\$ 161,023	\$ 12,143	
20 Small Business Energy Saver	8,947	46,011,147	24,033,614	9,294,966	11.75%	\$ 1,731,791	\$ 11,026,757	14.4391322%	E20 * F20	\$ 1,592,168	\$ 559,170	
21 Total for Non-Residential Conservation Programs	20,321	121,513,336	\$ 68,397,854	\$ 25,697,147		\$ 5,017,333	\$ 30,714,480			\$ 4,434,905	\$ 2,191,485	
								SC Non-Residential Peak Demand Allocation Factor				
22 EnergyWise ® for Business	8,886	1,536,576	1,903,711	2,476,808	11.75%	\$ (67,339)	\$ 2,409,469			\$ 418,813	\$ (9,684)	
23 Commercial Industrial Governmental Demand Response	7,357	-	15,116,849	6,123,482	11.75%	\$ 1,056,721	\$ 7,180,202			\$ 1,248,059	\$ 147,666	
24 Total for Non-Residential DSM Programs	16,243	1,536,576	\$ 17,020,560	\$ 8,600,290		\$ 989,382	\$ 9,589,672	13.4695760%	58.8818788%	(E13+E23) *F23 *G23	\$ 1,666,872	\$ 137,982
25 Total Non Residential	36,564	123,049,913	\$ 85,418,415	\$ 34,297,437		\$ 6,006,715	\$ 40,304,152			\$ 6,101,777	\$ 2,329,467	
26 Total All Programs	108,789	341,047,135	\$ 234,342,261	\$ 84,173,918		\$ 17,709,425	\$ 101,883,343			\$ 14,507,301	\$ 5,702,099	
DSDR	System kW Reduction - Summer Peak	System Energy Reduction (kWh)	System NPV of Avoided Costs	Total Cost	Shared Savings %	Incentive	Unadjusted Rev Requirement <sup>(3)</sup>	SC Retail kWh Sales Allocation Factor	SC Retail kWh Sales Allocation Factor	SC DSDR Unadjusted Revenue Requirement (3)	SC DSDR Adjusted Revenue Requirement	
27 DSDR	352,416	43,664,336		\$ 15,425,418	N/A	\$ -	\$ 15,425,418			\$ -	\$ -	
Total All Programs with DSDR	461,204	384,711,471	\$ 234,342,261	\$ 99,599,336		\$ 17,709,425	\$ 117,308,762			\$ 14,507,301	\$ 5,702,099	

(1) My Home Energy Report impacts reflect cumulative capability as of end of vintage year, including impacts for participants from prior vintages

(2) Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak



Duke Energy Progress  
Exhibit 7  
Vintage 2019 Estimate - January 1, 2019 to December 31, 2019  
Docket XXX  
Load Impacts and Estimated Revenue Requirements by Program

	A	B	C =A*B	D =A+C	E	F	G =PMT(E,F,D)	H =1-B	I	J											K =J+I
Residential Programs	SC Incentive	Income Tax Rate	Income Taxes	Net-of-Tax PPI - Total NPV	Discount Rate	PPI Amortization Period	Vintage Year 2019 - Year 1 PPI	Income Tax Gross-Up Factor	Adjusted PPI	Σ Prior Period PPI	Vintage 2009 PPI	Vintage 2010 PPI	Vintage 2011 PPI	Vintage 2012 PPI	Vintage 2013 PPI	Vintage 2014 PPI	Vintage 2015 PPI	Vintage 2016 PPI	Vintage 2017 PPI	Vintage 2018 PPI	PPI Values for Test Period
	EE Programs																				
1 Appliance Recycling Program	\$ -	23.50%	\$ -	\$ -	6.77%	3	\$ -	76.50%	\$ -	\$ 20,240	\$ -	\$ 5,380	\$ 3,477	\$ 4,782	\$ 2,935	\$ 1,378	\$ 857	\$ -	\$ (36)	\$ 1,467	\$ 20,240
2 Energy Education Program for Schools	\$ -	23.50%	\$ -	\$ -	6.77%	N/A	\$ -	76.50%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3 Energy Efficient Lighting	\$ 159,121	23.50%	\$ (37,399)	\$ 121,722	6.77%	3	\$ 46,187	76.50%	\$ 60,378	\$ 789,424	\$ -	\$ 94,447	\$ 86,665	\$ 97,403	\$ 109,693	\$ 73,027	\$ 63,194	\$ -	\$ 149,963	\$ 115,033	\$ 849,803
4 Home Energy Improvement	\$ (4,581)	23.50%	\$ 1,077	\$ (3,504)	6.77%	3	\$ (1,330)	76.50%	\$ (1,738)	\$ 69,122	\$ -	\$ 17,530	\$ 21,167	\$ 17,744	\$ -	\$ 2,690	\$ 4,642	\$ -	\$ 3,635	\$ 1,714	\$ 67,384
5 Multi-Family	\$ 94,974	23.50%	\$ (22,322)	\$ 72,652	6.77%	3	\$ 27,568	76.50%	\$ 36,038	\$ 172,167	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,303	\$ -	\$ 64,393	\$ 53,471	\$ 208,205
6 Neighborhood Energy Saver	\$ -	23.50%	\$ -	\$ -	6.77%	N/A	\$ -	76.50%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7 Residential Energy Assessments	\$ 11,364	23.50%	\$ (2,671)	\$ 8,693	6.77%	3	\$ 3,298	76.50%	\$ 4,312	\$ 32,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,655	\$ 11,004	\$ 36,972
8 Residential New Construction	\$ 225,251	23.50%	\$ (52,942)	\$ 172,309	6.77%	3	\$ 65,382	76.50%	\$ 85,471	\$ 266,496	\$ -	\$ -	\$ -	\$ -	\$ 8,208	\$ 10,050	\$ 13,766	\$ -	\$ 104,822	\$ 129,651	\$ 351,967
9 Residential Home Advantage	\$ -	23.50%	\$ -	\$ -	6.77%	3	\$ -	76.50%	\$ -	\$ 27,338	\$ -	\$ 5,257	\$ 12,043	\$ 10,037	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,338
10 Save Energy and Water Kit	\$ 309,524	23.50%	\$ (72,749)	\$ 236,775	6.77%	3	\$ 89,844	76.50%	\$ 117,448	\$ 212,142	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 126,833	\$ 85,308	\$ 329,590
11 Total for Residential Conservation Program	795,653		(187,007)	608,646			230,950		301,909	1,589,588	-	122,614	123,352	129,965	120,836	87,145	136,761	-	471,266	397,649	1,891,497
12 My Home Energy Report (REEB pre-2015)	\$ 527	23.50%	\$ (124)	\$ 403	6.77%	1	\$ 403	76.50%	\$ 527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 527
13 Total Residential Conservation and Behavior	796,180		(187,131)	609,049			231,353		302,436	1,589,588	-	122,614	123,352	129,965	120,836	87,145	136,761	-	471,266	397,649	1,892,025
14 EnergyWise ® Home	\$ 833,587	23.50%	\$ (195,923)	\$ 637,664	6.77%	3	\$ 241,961	76.50%	\$ 316,303	\$ 1,164,304	\$ -	\$ 133,740	\$ 134,840	\$ 40,586	\$ 49,709	\$ 66,651	\$ 47,480	\$ -	\$ 391,462	\$ 299,836	\$ 1,480,608
15 Total Residential	1,629,767		(383,054)	1,246,714			473,314		618,740	2,753,892	-	256,354	258,192	170,551	170,545	153,796	184,241	-	862,728	697,485	3,372,632
Non-Residential Programs	SC Incentive	Income Tax Rate	Income Taxes	Net-of-Tax PPI - Total NPV	Discount Rate	Vintage Year 2014 - Year 1 PPI	Vintage Year 2019 - Year 1 PPI	Income Tax Gross-Up Factor	Adjusted PPI	Σ Prior Period PPI	Vintage 2009 PPI	Vintage 2010 PPI	Vintage 2011 PPI	Vintage 2012 PPI	Vintage 2013 PPI	Vintage 2014 PPI	Vintage 2015 PPI	Vintage 2016 PPI	Vintage 2017 PPI	Vintage 2018 PPI	PPI Values for Test Period
EE Programs																					
15 Business Energy Report	\$ -	23.50%	\$ -	\$ -	6.77%	3	\$ -	76.50%	\$ -	\$ (330)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (330)	\$ -	\$ (330)
16 Energy Efficient Lighting	\$ 90,376	23.50%	\$ (21,241)	\$ 69,134	6.77%	3	\$ 26,233	76.50%	\$ 34,293	\$ 258,977	\$ -	\$ 23,309	\$ 20,870	\$ 25,901	\$ 29,621	\$ 21,328	\$ 29,006	\$ -	\$ 60,065	\$ 48,878	\$ 293,270
17 Non-Residential Smart Saver Performance	\$ 66,194	23.50%	\$ (15,558)	\$ 50,636	6.77%	3	\$ 19,214	76.50%	\$ 25,117	\$ 43,292	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,292	\$ 68,409
18 Non-Residential Smart Saver Performance	\$ 278,954	23.50%	\$ (65,564)	\$ 213,390	6.77%	3	\$ 80,970	76.50%	\$ 105,849	\$ 1,152,975	\$ -	\$ 78,191	\$ 110,576	\$ 119,215	\$ 116,862	\$ 80,566	\$ 70,268	\$ -	\$ 470,948	\$ 106,349	\$ 1,258,824
19 Non-Residential Smart Saver Performance	\$ 38,880	23.50%	\$ (9,138)	\$ 29,742	6.77%	3	\$ 11,286	76.50%	\$ 14,753	\$ (2,610)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,658	\$ (4,268)	\$ 12,143
20 Small Business Energy Saver	\$ 250,056	23.50%	\$ (58,772)	\$ 191,284	6.77%	3	\$ 72,582	76.50%	\$ 94,883	\$ 464,287	\$ -	\$ -	\$ -	\$ -	\$ 13,901	\$ 39,893	\$ 45,870	\$ -	\$ 171,861	\$ 192,761	\$ 559,170
21 Total for Non-Residential Conservation Programs	724,459		(170,274)	554,185			210,285		274,895	1,916,590	-	101,500	131,446	145,116	160,384	141,786	145,144	-	704,202	387,011	2,191,485
22 EnergyWise ® for Business	\$ (9,070)	23.50%	\$ 2,132	\$ (6,938)	6.77%	1	\$ (7,408)	76.50%	\$ (9,684)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (9,684)
23 Commercial, Industrial, & Governmental Districts	\$ 142,336	23.50%	\$ (33,454)	\$ 108,882	6.77%	3	\$ 41,315	76.50%	\$ 54,009	\$ 93,657	\$ -	\$ 10,743	\$ 4,625	\$ 3,199	\$ 1,602	\$ 4,535	\$ 790	\$ -	\$ 15,885	\$ 52,278	\$ 147,666
24 Total for Non-Residential DSM Programs	133,266		(31,322)	101,943			33,907		44,325	93,657	-	10,743	4,625	3,199	1,602	4,535	790	-	15,885	52,278	137,982
25 Total Non Residential	857,725		(201,596)	656,129			244,192		319,220	2,010,247	-	112,243	136,071	148,316	161,986	146,321	145,935	-	720,087	439,289	2,329,467
26 Total All Programs	2,487,492		(584,650)	1,902,842			717,506		937,960	4,764,139	-	368,596	394,263	318,867	332,531	300,117	330,176	-	1,582,815	1,136,775	5,702,099

**Duke Energy Progress**  
**For the Period January 1, 2018 - December 31, 2018**  
**Docket Number 2018-XX-E**  
**South Carolina Net Lost Revenue for Vintages 2015 - 2019**

Line	Residential	Vintage 2015						Total
		2013	2014	2015	2016(a)	2017(b)	2018(a)	
1	Appliance Recycling Program	-	-	11,178	21,542	-	-	32,720
2	Energy Education Program for Schools	-	-	21,907	31,428	-	-	53,335
3	Energy Efficient Lighting	-	-	358,431	733,611	-	-	1,092,042
4	Home Energy Improvement Program	-	-	5,941	11,915	-	-	17,855
5	Multi-Family	-	-	71,210	144,662	-	-	215,871
6	My Home Energy Report	-	-	426,394	-	-	-	426,394
7	Neighborhood Energy Saver	-	-	8,488	30,649	-	-	39,137
8	Residential New Construction	-	-	445	568	-	-	1,012
9	Save Energy and Water Kit	-	-	-	-	-	-	-
10	Total Lost Revenues	-	-	903,993	974,375	-	-	1,878,368
11	Found Residential Revenues	-	-	-	-	-	-	-
12	Net Lost Residential Revenues	-	-	903,993	974,375	-	-	1,878,368

Non-Residential		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
13	Energy Efficiency for Business	-	-	221,089	386,976	-	-	-	608,065
14	Energy Efficient Lighting	-	-	129,002	261,331	-	-	-	390,334
15	Small Business Energy Saver	-	-	128,707	319,774	-	-	-	448,481
16	EnergyWise for Business	-	-	-	-	-	-	-	-
17	Total Lost Revenues	-	-	478,799	968,081	-	-	-	1,446,880
18	Found Non-Residential Revenues	-	-	-	-	-	-	-	-
19	Net Lost Non-Residential Revenues	-	-	478,799	968,081	-	-	-	1,446,880

DSDR		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
20	DSDR	-	-	71,965	24,619	-	-	-	96,584

Line	Residential	Vintage 2016						Total
		2013	2014	2015	2016(a)	2017(a)	2018(a)	
1	Appliance Recycling Program				272	352	306	962
2	Energy Education Program for Schools				9,124	22,169	19,299	61,868
3	Energy Efficient Lighting				190,078	448,283	409,210	1,279,522
4	Home Energy Improvement Program				5,963	15,666	13,637	43,794
5	Multi-Family				51,534	111,707	97,242	310,883
6	My Home Energy Report				594,784	-	-	594,784
7	Neighborhood Energy Saver				11,304	17,774	15,472	48,986
8	Residential Energy Assessments				9,117	32,637	28,411	91,745
9	Residential New Construction				-	-	-	-
10	Save Energy and Water Kit				33,638	100,604	87,576	281,949
11	Total Lost Revenues	-	-	-	905,814	749,192	671,153	2,714,492
12	Found Residential Revenues	-	-	-	-	-	-	-
13	Net Lost Residential Revenues	-	-	-	905,814	749,192	671,153	2,714,492

Non-Residential		2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
14	Business Energy Reports				34,281	-	-	-	34,281
15	Energy Efficiency for Business				216,489	479,001	416,228	221,625	1,333,344
16	Energy Efficient Lighting				60,544	137,515	127,556	70,112	395,727
17	Small Business Energy Saver				135,209	286,501	248,955	125,994	796,658
18	EnergyWise for Business				428	713	620	208	1,970
19	Total Lost Revenues	-	-	-	446,952	903,730	793,359	417,939	2,561,980
20	Found Non-Residential Revenues	-	-	-	(4,852)	(7,607)	(7,607)	(2,755)	(22,820)
21	Net Lost Non-Residential Revenues	-	-	-	442,100	896,123	785,753	415,184	2,539,160

DSDR		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
22	DSDR	-	-	-	21,839	14,793	-	-	36,632

Line	Residential	Vintage 2017						Total
		2013	2014	2015	2016(a)	2017(a)	2018(a)	
1	Appliance Recycling Program					-	-	-
2	Energy Education Program for Schools					13,485	17,660	51,098
3	Energy Efficient Lighting					101,209	240,747	613,980
4	Home Energy Improvement Program					12,370	19,982	54,929
5	Multi-Family					31,599	65,513	171,136
6	My Home Energy Report					761,737	-	761,737
7	Neighborhood Energy Saver					31,866	40,536	118,206
8	Residential Energy Assessments					27,874	46,290	126,467
9	Residential New Construction					200	275	786
10	Save Energy and Water Kit					84,923	153,249	411,331
11	Total Lost Revenues	-	-	-	-	1,065,264	584,252	2,309,671
12	Found Residential Revenues	-	-	-	-	-	-	-
13	Net Lost Residential Revenues	-	-	-	-	1,065,264	584,252	2,309,671

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Non-Residential		2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
14	Business Energy Report					97	-	-	97
15	Energy Efficiency for Business					376,438	529,987	598,490	1,504,915
16	Energy Efficient Lighting					26,949	62,616	70,751	160,315
17	Non-Res SmartSaver Performance					-	-	-	-
18	Small Business Energy Saver					203,311	344,920	389,503	937,734
19	EnergyWise for Business					583	767	867	2,217
20	Total Lost Revenues	-	-	-	-	607,378	938,290	1,059,610	2,605,278
21	Found Non-Residential Revenues	-	-	-	-	(4,066)	(4,710)	(4,710)	(13,486)
22	Net Lost Non-Residential Revenues	-	-	-	-	603,313	933,580	1,054,899	2,591,792
DSDR		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
23	DSDR	-	-	-	-	4,917	195	-	5,112
Vintage 2018									
Line	Residential	2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
1	Appliance Recycling Program						10,070	-	10,070
2	Energy Education Program for Schools						13,873	35,068	48,941
3	Energy Efficient Lighting						100,023	190,293	290,316
4	Home Energy Improvement Program						25,595	66,924	92,520
5	Multi-Family						59,219	118,449	177,668
6	Neighborhood Energy Saver						9,302	17,457	26,760
7	Residential Energy Assessments						11,826	21,563	33,390
8	Residential New Construction						338	624	963
9	Save Energy and Water Kit						99,303	251,177	350,480
10	My Home Energy Report						803,738	-	803,738
11	Total Lost Revenues	-	-	-	-	-	1,133,287	701,557	1,834,845
12	Found Residential Revenues	-	-	-	-	-	-	-	-
13	Net Lost Residential Revenues	-	-	-	-	-	1,133,287	701,557	1,834,845
Non-Residential		2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
14	Business Energy Reports						-	-	-
15	Energy Efficiency for Business						306,719	619,269	925,988
16	Energy Efficient Lighting						26,506	44,137	70,644
17	Non-Residential Smart \$aver Performance Incentive						-	12,951	12,951
18	Small Business Energy Saver						205,445	386,844	592,289
19	EnergyWise ® for Business						8,901	6,375	15,276
20	Total Lost Revenues	-	-	-	-	-	547,572	1,069,576	1,617,148
21	Found Non-Residential Revenues	-	-	-	-	-	(9,931)	(18,826)	(28,757)
22	Net Lost Non-Residential Revenues	-	-	-	-	-	537,642	1,050,749	1,588,391
DSDR		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
22	DSDR	-	-	-	-	-	-	-	-
Vintage 2019									
Line	Residential	2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
1	Appliance Recycling Program	-	-	-	-	-	-	-	-
2	Energy Education Program for Schools	-	-	-	-	-	-	18,039	18,039
3	Energy Efficient Lighting	-	-	-	-	-	-	121,857	121,857
4	Home Energy Improvement Program	-	-	-	-	-	-	27,192	27,192
5	Multi-Family	-	-	-	-	-	-	36,761	36,761
6	Neighborhood Energy Saver	-	-	-	-	-	-	14,765	14,765
7	Residential Energy Assessments	-	-	-	-	-	-	10,526	10,526
8	Residential New Construction	-	-	-	-	-	-	-	-
9	Save Energy and Water Kit	-	-	-	-	-	-	93,540	93,540
10	My Home Energy Report	-	-	-	-	-	-	804,154	804,154
11	Total Lost Revenues	-	-	-	-	-	-	1,126,834	1,126,834
12	Found Residential Revenues	-	-	-	-	-	-	-	-
13	Net Lost Residential Revenues	-	-	-	-	-	-	1,126,834	1,126,834
Non-Residential		2013	2014	2015	2016(a)	2017(a)	2018(a)	2019	Total
14	Non-Residential Smart \$aver	-	-	-	-	-	-	683,577	683,577
15	Non-Residential Smart \$aver Performance Incentive	-	-	-	-	-	-	54,223	54,223
16	Energy Efficient Lighting	-	-	-	-	-	-	32,124	32,124
17	Small Business Energy Saver	-	-	-	-	-	-	199,243	199,243
18	EnergyWise ® for Business	-	-	-	-	-	-	7,038	7,038
19	Total Lost Revenues	-	-	-	-	-	-	976,206	976,206
20	Found Non-Residential Revenues	-	-	-	-	-	-	(13,135)	(13,135)
21	Net Lost Non-Residential Revenues	-	-	-	-	-	-	963,071	963,071
DSDR		2013	2014	2015	2016(a)	2017(b)	2018(a)	2019	Total
22	DSDR	-	-	-	-	-	-	-	-

(a) Lost revenues were estimated by applying forecasted lost revenue rates for residential and non-residential customers to state specific forecasted program participation.

(b) DEP ineligible for 2017 lost revenues for Vintage 2014 and 2015. New base rates from rate case in effect 1/1/2017

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Line	Residential	Vintage 2015 as Filed Lost Revenue kWh \$					
		2015	2016(a)	2017(a)	2018	2019	Total
1	Appliance Recycling Program	\$ 11,178	\$ 21,542	\$ -	\$ -	\$ -	\$ 32,720
2	Energy Education Program for Schools	\$ 19,236	\$ 27,596	\$ -	\$ -	\$ -	\$ 46,831
3	Energy Efficient Lighting	\$ 358,431	\$ 733,611	\$ -	\$ -	\$ -	\$ 1,092,042
4	Home Energy Improvement Program	\$ 5,941	\$ 11,915	\$ -	\$ -	\$ -	\$ 17,855
5	Multi-Family	\$ 78,122	\$ 158,876	\$ -	\$ -	\$ -	\$ 236,998
6	My Home Energy Report	\$ 531,756	\$ -	\$ -	\$ -	\$ -	\$ 531,756
7	Neighborhood Energy Saver	\$ 8,488	\$ 30,649	\$ -	\$ -	\$ -	\$ 39,137
8	Residential New Construction	\$ 374	\$ 478	\$ -	\$ -	\$ -	\$ 852
9	Save Energy and Water Kit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Lost Residential Revenues	\$ 1,013,527	\$ 984,667	\$ -	\$ -	\$ -	\$ 1,998,193
11	Found Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Net Lost Residential Revenues	\$ 1,013,527	\$ 984,667	\$ -	\$ -	\$ -	\$ 1,998,193
Non-Residential		2015	2016(a)	2017(a)	2018	2019	Total
13	Energy Efficiency for Business	\$ 221,090	\$ 386,976	\$ -	\$ -	\$ -	\$ 608,066
14	Energy Efficient Lighting	\$ 129,003	\$ 261,331	\$ -	\$ -	\$ -	\$ 390,334
15	Small Business Energy Saver	\$ 128,708	\$ 319,774	\$ -	\$ -	\$ -	\$ 448,482
16	EnergyWise for Business	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Net Lost Non-Residential Revenues	\$ 478,800	\$ 968,081	\$ -	\$ -	\$ -	\$ 1,446,882
18	Found Non- Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Net Lost Non-Residential Revenues	\$ 478,800	\$ 968,081	\$ -	\$ -	\$ -	\$ 1,446,882
DSDR		2015	2016(a)	2017(a)	2018	2019	Total
20	DSDR	\$ 71,965	\$ 24,619	\$ -	\$ -	\$ -	\$ 96,584
Line	Residential	Vintage 2016 as Filed Lost Revenue kWh \$					
		2015	2016(a)	2017(a)	2018	2019	Total
1	Appliance Recycling Program	\$ -	\$ 272	\$ 32,914	\$ 306	\$ -	\$ 33,492
2	Energy Education Program for Schools	\$ -	\$ 8,012	\$ 16,027	\$ 16,945	\$ -	\$ 40,984
3	Energy Efficient Lighting	\$ -	\$ 190,078	\$ 363,734	\$ 409,210	\$ -	\$ 963,023
4	Home Energy Improvement Program	\$ -	\$ 5,955	\$ 13,580	\$ 13,610	\$ -	\$ 33,145
5	Multi-Family	\$ -	\$ 54,692	\$ 86,467	\$ 101,138	\$ -	\$ 242,297
6	My Home Energy Report	\$ -	\$ 742,850	\$ -	\$ -	\$ -	\$ 742,850
7	Neighborhood Energy Saver	\$ -	\$ 11,304	\$ 13,917	\$ 15,472	\$ -	\$ 40,693
8	Residential Energy Assessments	\$ -	\$ 9,117	\$ 10,970	\$ 28,411	\$ -	\$ 48,497
9	Residential New Construction	\$ -	\$ -	\$ 70,434	\$ -	\$ -	\$ 70,434
10	Save Energy and Water Kit	\$ -	\$ 31,447	\$ 100,348	\$ 81,756	\$ -	\$ 213,551
11	Lost Residential Revenues	\$ -	\$ 1,053,726	\$ 708,390	\$ 666,849	\$ -	\$ 2,428,965
12	Found Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Net Lost Residential Revenues	\$ -	\$ 1,053,726	\$ 708,390	\$ 666,849	\$ -	\$ 2,428,965
Non-Residential		2015	2016(a)	2017(a)	2018	2019	Total
11	Business Energy Reports	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Energy Efficiency for Business	\$ 216,489	\$ 954,348	\$ 416,228	\$ -	\$ -	\$ 1,587,065
13	Energy Efficient Lighting	\$ 60,544	\$ 226,376	\$ 127,556	\$ -	\$ -	\$ 414,476
14	Small Business Energy Saver	\$ 135,835	\$ 281,766	\$ 250,316	\$ -	\$ -	\$ 667,917
15	EnergyWise for Business	\$ 1,104	\$ 2,947	\$ 1,598	\$ -	\$ -	\$ 5,650
16	Net Lost Non-Residential Revenues	\$ -	\$ 413,973	\$ 1,465,437	\$ 795,698	\$ -	\$ 2,675,108
17	Found Non- Residential Revenues	\$ -	\$ (4,852)	\$ (7,607)	\$ (7,607)	\$ -	\$ (20,065)
18	Net Lost Non-Residential Revenues	\$ -	\$ 409,122	\$ 1,457,830	\$ 788,092	\$ -	\$ 2,655,043
DSDR		2015	2016(a)	2017(a)	2018	2019	Total
19	DSDR	\$ 21,839	\$ 12,638	\$ -	\$ -	\$ -	\$ 34,478



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		Vintage 2015 True Up Lost Revenue kWh \$										
Line	Residential	2015		2016(a)		2017(a)		2018		2019		Total
1	Appliance Recycling Program	\$	11,178	\$	21,542	\$	-	\$	-	\$	-	32,720
2	Energy Education Program for Schools	\$	21,907	\$	31,428	\$	-	\$	-	\$	-	53,335
3	Energy Efficient Lighting	\$	358,431	\$	733,611	\$	-	\$	-	\$	-	1,092,042
4	Home Energy Improvement Program	\$	5,941	\$	11,915	\$	-	\$	-	\$	-	17,855
5	Multi-Family	\$	71,210	\$	144,662	\$	-	\$	-	\$	-	215,871
6	My Home Energy Report	\$	426,394	\$	-	\$	-	\$	-	\$	-	426,394
7	Neighborhood Energy Saver	\$	8,488	\$	30,649	\$	-	\$	-	\$	-	39,137
8	Residential New Construction	\$	445	\$	568	\$	-	\$	-	\$	-	1,012
9	Save Energy and Water Kit	\$	-	\$	-	\$	-	\$	-	\$	-	-
10	Lost Residential Revenues	\$	903,993	\$	974,375	\$	-	\$	-	\$	-	1,878,368
11	Found Residential Revenues	\$	-	\$	-	\$	-	\$	-	\$	-	-
12	Net Lost Residential Revenues	\$	903,993	\$	974,375	\$	-	\$	-	\$	-	1,878,368
Non-Residential		2015		2016(a)		2017(a)		2018		2019		Total
13	Energy Efficiency for Business	\$	221,089	\$	386,976	\$	-	\$	-	\$	-	608,065
14	Energy Efficient Lighting	\$	129,002	\$	261,331	\$	-	\$	-	\$	-	390,334
15	Small Business Energy Saver	\$	128,707	\$	319,774	\$	-	\$	-	\$	-	448,481
16	EnergyWise for Business	\$	-	\$	-	\$	-	\$	-	\$	-	-
17	Net Lost Non-Residential Revenues	\$	478,799	\$	968,081	\$	-	\$	-	\$	-	1,446,880
18	Found Non- Residential Revenues	\$	-	\$	-	\$	-	\$	-	\$	-	-
19	Net Lost Non-Residential Revenues	\$	478,799	\$	968,081	\$	-	\$	-	\$	-	1,446,880
DSDR		2015		2016(a)		2017(a)		2018		2018		Total
20	DSDR	\$	71,965	\$	24,619	\$	-	\$	-	\$	-	96,584
		Vintage 2016 True Up Lost Revenue kWh \$										
Line	Residential	2015		2016(a)		2017(a)		2018		2019		Total
1	Appliance Recycling Program	\$	-	\$	272	\$	352	\$	306	\$	32	962
2	Energy Education Program for Schools	\$	-	\$	9,124	\$	22,169	\$	19,299	\$	11,276	61,868
3	Energy Efficient Lighting	\$	-	\$	190,078	\$	448,283	\$	409,210	\$	231,951	1,279,522
3	Home Energy Improvement Program	\$	-	\$	5,963	\$	15,666	\$	13,637	\$	8,527	43,794
4	Multi-Family	\$	-	\$	51,534	\$	111,707	\$	97,242	\$	50,400	310,883
5	My Home Energy Report	\$	-	\$	594,784	\$	-	\$	-	\$	-	594,784
6	Neighborhood Energy Saver	\$	-	\$	11,304	\$	17,774	\$	15,472	\$	4,436	48,986
7	Residential Energy Assessments	\$	-	\$	9,117	\$	32,637	\$	28,411	\$	21,580	91,745
8	Residential New Construction	\$	-	\$	-	\$	-	\$	-	\$	-	-
9	Save Energy and Water Kit	\$	-	\$	33,638	\$	100,604	\$	87,576	\$	60,132	281,949
10	Lost Residential Revenues	\$	-	\$	905,814	\$	749,192	\$	671,153	\$	388,334	2,714,492
11	Found Residential Revenues	\$	-	\$	-	\$	-	\$	-	\$	-	-
12	Net Lost Residential Revenues	\$	-	\$	905,814	\$	749,192	\$	671,153	\$	388,334	2,714,492
Non-Residential		2015		2016(a)		2017(a)		2018		2019		Total
11	Business Energy Reports	\$	-	\$	34,281	\$	-	\$	-	\$	-	34,281
12	Energy Efficiency for Business	\$	-	\$	216,489	\$	479,001	\$	416,228	\$	221,625	1,333,344
13	Energy Efficient Lighting	\$	-	\$	60,544	\$	137,515	\$	127,556	\$	70,112	395,727
14	Small Business Energy Saver	\$	-	\$	135,209	\$	286,501	\$	248,955	\$	125,994	796,658
15	EnergyWise for Business	\$	-	\$	428	\$	713	\$	620	\$	208	1,970
16	Net Lost Non-Residential Revenues	\$	-	\$	446,952	\$	903,730	\$	793,359	\$	417,939	2,561,980
17	Found Non- Residential Revenues	\$	-	\$	(4,852)	\$	(7,607)	\$	(7,607)	\$	(2,755)	(22,820)
18	Net Lost Non-Residential Revenues	\$	-	\$	442,100	\$	896,123	\$	785,753	\$	415,184	2,539,160
DSDR		2015		2016(a)		2017(a)		2018		2019		Total
19	DSDR	\$	-	\$	21,839	\$	14,793	\$	-	\$	-	36,632

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South Carolina Net Lost Revenue True Up for Vintages 2015 - 2016

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		Vintage 2015 Variance Lost Revenue kWh \$					
Line	Residential	2015	2016(a)	2017(a)	2018	2019	Total
1	Appliance Recycling Program	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ 0
2	Energy Education Program for Schools	\$ 2,671	\$ 3,832	\$ -	\$ -	\$ -	\$ 6,504
3	Energy Efficient Lighting	\$ (0)	\$ -	\$ -	\$ -	\$ -	\$ (0)
4	Home Energy Improvement Program	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ 0
5	Multi-Family	\$ (6,913)	\$ (14,214)	\$ -	\$ -	\$ -	\$ (21,127)
6	My Home Energy Report	\$ (105,362)	\$ -	\$ -	\$ -	\$ -	\$ (105,362)
7	Neighborhood Energy Saver	\$ 0	\$ -	\$ -	\$ -	\$ -	\$ 0
8	Residential New Construction	\$ 70	\$ 90	\$ -	\$ -	\$ -	\$ 160
9	Save Energy and Water Kit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Lost Residential Revenues	\$ (109,533)	\$ (10,292)	\$ -	\$ -	\$ -	\$ (119,825)
11	Found Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Net Lost Residential Revenues	\$ (109,533)	\$ (10,292)	\$ -	\$ -	\$ -	\$ (119,825)
Non-Residential		2015	2016(a)	2017(a)	2018	2019	Total
13	Energy Efficiency for Business	-	-	-	-	\$ -	\$ -
14	Energy Efficient Lighting	-	-	-	-	\$ -	\$ -
15	Small Business Energy Saver	-	-	-	-	\$ -	\$ -
16	EnergyWise for Business	-	-	-	-	\$ -	\$ -
17	Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0
18	Found Non- Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Net Lost Non-Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DSDR		2015	2016(a)	2017(a)	2018	2019	Total
20	DSDR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		Vintage 2016 Variance Lost Revenue kWh \$					
Line	Residential	2015	2016(a)	2017(a)	2018	2019	Total
1	Appliance Recycling Program	\$ -	\$ -	\$ (32,562)	\$ -	\$ 32	\$ (32,530)
2	Energy Education Program for Schools	\$ -	\$ 1,113	\$ 6,143	\$ 2,353	\$ 11,276	\$ 20,884
3	Energy Efficient Lighting	\$ -	\$ -	\$ 84,548	\$ -	\$ 231,951	\$ 316,500
3	Home Energy Improvement Program	\$ -	\$ 9	\$ 2,086	\$ 27	\$ 8,527	\$ 10,649
4	Multi-Family	\$ -	\$ (3,158)	\$ 25,241	\$ (3,896)	\$ 50,400	\$ 68,587
5	My Home Energy Report	\$ -	\$ (148,067)	\$ -	\$ -	\$ -	\$ (148,067)
6	Neighborhood Energy Saver	\$ -	\$ -	\$ 3,857	\$ -	\$ 4,436	\$ 8,293
7	Residential Energy Assessments	\$ -	\$ -	\$ 21,667	\$ -	\$ 21,580	\$ 43,247
8	Residential New Construction	\$ -	\$ -	\$ (70,434)	\$ -	\$ -	\$ (70,434)
9	Save Energy and Water Kit	\$ -	\$ 2,191	\$ 255	\$ 5,820	\$ 60,132	\$ 68,398
10	Lost Residential Revenues	\$ -	\$ (147,912)	\$ 40,801	\$ 4,304	\$ 388,334	\$ 285,527
11	Found Residential Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Net Lost Residential Revenues	\$ -	\$ (147,912)	\$ 40,801	\$ 4,304	\$ 388,334	\$ 285,527
Non-Residential		2015	2016(a)	2017(a)	2018	2019	Total
11	Business Energy Reports	-	34,281	-	-	\$ -	\$ 34,281
12	Energy Efficiency for Business	-	-	(475,347)	-	\$ 221,625	\$ (253,722)
13	Energy Efficient Lighting	-	-	(88,861)	-	\$ 70,112	\$ (18,749)
14	Small Business Energy Saver	-	(627)	4,735	(1,361)	\$ 125,994	\$ 128,741
15	EnergyWise for Business	-	(676)	(2,234)	(978)	\$ 208	\$ (3,680)
16	Net Lost Non-Residential Revenues	\$ -	\$ 32,978	\$ (561,707)	\$ (2,339)	\$ 417,939	\$ (113,128)
17	Found Non- Residential Revenues	-	-	-	-	\$ (2,755)	\$ (2,755)
18	Net Lost Non-Residential Revenues	\$ -	\$ 32,978	\$ (561,707)	\$ (2,339)	\$ 415,184	\$ (115,883)
DSDR		2015	2016(a)	2017(a)	2018	2019	Total
19	DSDR	-	-	2,154	-	\$ -	\$ 2,154

## Exhibit 9

**Duke Energy Progress**  
**For the Period January 1, 2017 - December 31, 2017**  
**Docket 2018-XX-E**  
**Actual Program Costs for Vintage Year 2017**

			<b>Carolinas System - 12 Months Ended 12/31/2017</b>
			<u></u>
1	Appliance Recycling Program		\$ 5,564
2	Home Energy Improvement Program		\$ 6,943,336
3	Energy Efficient Lighting		\$ 10,878,606
4	Neighborhood Energy Saver		\$ 1,770,184
5	Residential New Construction		\$ 11,641,019
6	Residential Energy Efficient Benchmarking		\$ -
7	Residential Home Advantage		\$ -
8	Energy Education Program for Schools		\$ 833,667
9	ResEE Multi-Family		\$ 2,508,522
10	My Home Energy Report		\$ 6,737,747
11	Residential Energy Assessments		\$ 1,858,160
12	Save Energy and Water Kit		\$ 886,907
13	Business Energy Report		\$ 20,281
14	Energy Efficiency for Business		\$ 21,690,021
15	Energy Efficient Lighting		\$ 1,321,823
16	Non-Res SmartSaver Performance		\$ 144,855
17	Small Business Energy Saver		\$ 8,751,334
18	EnergyWise		\$ 13,079,484
19	EnergyWise for Business		\$ 1,384,307
20	CIG DR		<u>\$ 1,516,445</u>
21	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	Sum(Lines 1-20)	<u><b>\$ 91,972,260</b></u>

22	SC Allocation Factor for EE programs	Final SC 2017 Allocation Fact	14.49%
23	SC Allocation Factor for DSM programs	Final SC 2017 Allocation Fact	13.84%

			<b>SC Allocated - 12 Months Ended 12/31/2017 (1)</b>
			<u></u>
24	Appliance Recycling Program	Line 1 * Line 22	\$ 806.36
25	Home Energy Improvement Program	Line 2 * Line 22	\$ 1,006,208.28
26	Energy Efficient Lighting	Line 3 * Line 22	\$ 1,576,496.32
27	Neighborhood Energy Saver	Line 4 * Line 22	\$ 256,529.93
28	Residential New Construction	Line 5 * Line 22	\$ 1,686,983.05
29	Residential Energy Efficient Benchmarking	Line 6 * Line 22	\$ -
30	Residential Home Advantage	Line 7 * Line 22	\$ -
31	Energy Education Program for Schools	Line 8 * Line 22	\$ 120,812.56
32	ResEE Multi-Family	Line 9 * Line 22	\$ 363,527.77
33	My Home Energy Report	Line 10 * Line 22	\$ 976,415.00
34	Residential Energy Assessments	Line 11 * Line 22	\$ 269,279.19
35	Save Energy and Water Kit	Line 12 * Line 22	\$ 128,528.00
36	Business Energy Report	Line 13 * Line 22	\$ 2,939.13
37	Energy Efficiency for Business	Line 14 * Line 22	\$ 3,143,255.62
38	Energy Efficient Lighting	Line 15 * Line 22	\$ 191,554.84
39	Non-Res SmartSaver Performance	Line 16 * Line 22	\$ 20,992.01
40	Small Business Energy Saver	Line 17 * Line 22	\$ 1,268,218.23
41	EnergyWise	Line 18 * Line 23	\$ 1,810,472.06
42	EnergyWise for Business	Line 19 * Line 23	\$ 191,616.75
43	CIG DR	Line 20 * Line 23	<u>\$ 209,907</u>
44	<b>Total Energy Efficiency &amp; Demand Side Program Costs</b>	Sum (Lines 24-43)	<u><b>\$ 13,224,543</b></u>

(1) SC Allocations are based on annual weighted average, which are employed in the allocation of Utility Cost Test (UCT) results for PPI determination. This differs from the allocation used in Exhibit 2, which allocates actual costs by month.

## SC Exhibit 10

**Duke Energy Progress, LLC**  
**January - December 2017 Actuals**  
**January 2018 - December 2019 Estimates**  
**Docket No. XXX**  
**South Carolina Found Revenues**

	Actual/Reported KWH		Estimated KWH	
	2016	2017	2018	2019
Economic Development	11,000,000	34,800,000	-	-
Lighting				
Residential	9,257	7,589	7,589	7,589
Non Residential (Regulated)	49,512	42,441	42,441	42,441
MV to LED Credit - Residential (Regulated)	(191,894)	(189,023)	(44,465)	(12,594)
MV to LED Credit - Non-Residential (Regulated)	(35,070)	(34,793)	(8,185)	(2,318)
Total KWH	10,831,805	34,626,214	(2,619)	35,117
Total KWH Included	(168,195)	(173,786)	(2,619)	35,117
Total KWH Included (net of Free Riders 15%)	(142,966)	(147,718)	(2,227)	29,850
Annualized Found Revenue - Non Residential	\$ 7,607	\$ 4,710	\$ 18,333	\$ 24,248
Annualized Found Revenue - Residential	\$ (109,476)	\$ (127,606)	\$ (22,577)	\$ (3,463)
	2016	2017	2018	2019
Vintage 2016 - Non Res	\$ 4,852	7,607	7,607	2,755
Vintage 2017 - Non Res		\$ 4,066	4,710	4,710
Vintage 2018 - Non Res			\$ 9,931	18,826
Vintage 2019 - Non Res				\$ 13,135
Net Negative Found Revenues to Zero*	-	-	-	-
Subtotal - Non Res	\$ 4,852	\$ 11,672	\$ 22,248	\$ 39,426
Vintage 2016 - Res	\$ (59,359)	(109,476)	(109,476)	(50,116)
Vintage 2017 - Res		\$ (68,666)	(127,606)	(127,606)
Vintage 2018 - Res			\$ (12,229)	(20,984)
Vintage 2019 - Res				\$ (1,876)
Net Negative Found Revenues to Zero*	59,359	178,142	249,311	200,582
Subtotal - Residential	\$ -	\$ -	\$ -	\$ -
Total Found Revenues	\$ 4,852	\$ 11,672	\$ 22,248	\$ 39,426

\* Eliminates the inclusion of total negative found revenues at the Residential level



## Appliance Recycling Program

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### A. Description

The Appliance Recycling Program ("Program") promoted the removal and responsible disposal of operating refrigerators and freezers from Duke Energy Progress (DEP) LLC's (the "Company") residential customers. The refrigerator or freezer must have a capacity of at least 10 cubic feet but not more than 30 cubic feet. The Program recycled approximately 95% of the material from the harvested appliances.

### Audience

Eligible Program participants include the Company's residential customers who own operating refrigerators and freezers used in individually metered residences. Currently, this Program is closed to new participants.

### B & C. Impacts, Participants and Expenses

2017 Year End Results	Annual Forecast	Actual	Variations
Savings (MWH)	3,979	0	-3,979
Savings (MW)	0.53	0.00	-0.53
Participants		0	
2017 Program Expenses		\$5,591	

### D. Qualitative Analysis

#### Highlights

No highlights to report.

#### Issues

No issues to report

#### Potential Changes

No changes at this time.

### E. Marketing Strategy

No Marketing efforts were conducted.

### F. Evaluation, Measurement and Verification

No evaluation activities are planned in 2017.

# Save Energy and Water Kit

## A. Description

The Save Energy and Water Kit Program launched in November of 2015 to offer residential customers energy efficient water fixtures and insulating pipe tape for use within their homes.

Customers receive a Business Reply Card (BRC) to return or they may call a toll-free number if they would like to participate. Participants receive a free kit with installation instructions and varying numbers of bath aerators, kitchen aerators, shower heads and pipe insulation tape, based on the size of their homes.

Energy Federation Incorporated (EFI) processes the BRCs, furnishes the measures, and assembles all kits. EFI also maintains the call center where customer calls are routed if they choose to redeem the offer via telephone instead of returning the BRC. EFI validate BRCs and phone calls in a database to ensure a customer's eligibility and to prevent a customer from participating multiple times.

The program has a website in place that customers can access to learn more about the program or to watch videos to aid in installing the kit measures.

## Audience

The Program is available to customers residing in a single-family home with an electric water heater who have not received similar measures through another Company-offered energy efficiency program.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Forecasted	Actual	Variations
Savings (MWH)	14,907	29,898	14,991
Savings (MW)	1.19	8.56	7.37
Participants		463,854	
2017 Program Expenses		\$ 889,269	

## D. Qualitative Analysis

### Highlights

In 2017, over 375,000 Business Reply Cards (BRC) were distributed to Duke Energy Progress customers in the Carolinas. Replying by mail or by phone, 42,071 customers accepted the offer and received kits. These kits delivered approximately 140,952 bath aerators, 42,071 kitchen aerators, 70,476 showerheads and 210,355 feet of pipe insulation.

### Issues

The program was successfully launched without any issues regarding ordering, fulfillment or support of the program. EM&V data shows a higher percentage of gas water heater customers participated in the program in 2016 than expected.

### Potential Changes

In 2017, the electric water heater propensity model was updated in order to reduce participation by customers with gas water heaters. In 2018, Duke Energy will expand redemption channels to include an online store for customers who prefer to enroll in the program online. Future phases of the online platform will allow customers to upgrade kit items by selecting specific finishes or styles.

### **E. Marketing Strategy**

Due to the unique eligibility requirements of the program, all marketing has historically been done through an offer only Business Reply Card (BRC) approach. Customers who qualify are sent a BRC inviting them to participate. They can accept the offer by returning the postage paid reply card or by calling EFI's call center. In 2018, Marketing will expand to include direct email to market segments that are more inclined to engage in a digital transaction.

With the launch of the Online Store, Duke Energy will begin using targeted email campaigns. Customers that receive these emails will be subject to the same eligibility requirements as those that receive the BRC direct mailer.

### **F. Evaluation, Measurement and Verification**

Evaluation work for the combined DEC/DEP Save Energy and Water program was completed in 2017. Evaluation activities combined participant surveys and engineering methods to quantify energy and demand impacts from the water measures provided in the kit. Participant surveys helped inform in-service rates, satisfaction with the kit measures, and free ridership and spillover. Verified results include gross energy savings per kit of 396.1 kWh versus ex-ante impacts of 432.0 kWh, for an energy realization rate of 92%. Program free ridership was 15% and spillover was estimated at 8%, for a NTG of 93%.

# Energy Efficiency Education Program

## A. Description

The Energy Efficiency Education Program ("Program") is an energy efficiency program available to students in grades K-12 enrolled in public and private schools who reside in households served by Duke Energy Progress in North and South Carolina. The current curriculum administered by The National Theatre for Children ("NTC") targets K-8 grade students.

The Program provides principals and teachers with an innovative curriculum that educates students about energy, resources, the relationship between energy and resources, ways energy is wasted and ways they can be more energy efficient. The centerpiece of the curriculum is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency and performed by two professional actors. Teachers receive supportive educational materials for their classrooms and assignments for students to take home. The workbooks, assignments, and activities meet state curriculum requirements.

School principals are the main point of contact for scheduling their school's performance. Once the principal confirms the performance date and time, all materials are scheduled for delivery two weeks prior to the performance. Materials include school posters, teacher guides, and classroom and family activity books.

Students are encouraged to complete a home energy survey with their families (found in their classroom and family activity book, as well as online), to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy consumption. The kit is available at no cost to student households at participating schools.

## Audience

Eligible participants include the Company's residential customers, with school-age children enrolled in public and private schools, who reside in households served by Duke Energy Progress.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variation
Savings (MWH)	1,901	2,240	339
Savings (MW)	0.19	0.95	0.76
Participants		9,104	
2017 Program Expenses		\$835,575	

## D. Qualitative Analysis

### Highlights

The Program, which is in its fourth year, has been well received by schools, teachers, students and parents thanks to its important message about energy efficiency and innovative delivery channel which reinforces the classroom material. The 2016-2017 school year, NTC offered two productions—the Conservation Caper, a 25-minute live production delivered to elementary school-aged students, and the Energy Agents, a 40-minute improvisational sketch comedy for middle school-aged students.

## Energy Efficiency Education Program

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During the spring semester of the 2016-2017 school year, the Program visited 99 schools in North and South Carolina and reached over 31,576 students with the energy efficiency curriculum. Additionally, the Program distributed 5,824 Energy Efficiency Starter Kits to student households served by Duke Energy Progress. During the fall semester of the 2017-2018 school year, a total of 113 schools hosted 185 performances before approximately 43,378 students, resulting in the distribution of 3,762 kits. Overall, 9,104 Duke Energy customers received Energy Efficiency Starter Kits in 2017.

Once the energy efficiency survey is processed for an eligible customer, the Energy Efficiency Starter Kit is shipped for arrival within two to four weeks. To ensure customer satisfaction with the kit and the installation of items, an email reminder is sent monthly after successful kit delivery to encourage families to return their Business Reply Card (BRC). Qualified households that submit their energy efficiency surveys and return the BRC are automatically entered into the household contest drawing, sponsored by NTC.

Additionally, school and classroom contests encourage sign ups and NTC awards checks to schools with a large percentage of families returning their surveys. In the fall and spring of each year, a drawing is held selecting one school and one household contest winner. Principals, teachers and students may view their school's progress and compare the number of sign ups to other schools via the website.

Currently, the Program is reviewing additional materials for all student households, particularly those that have already received the current Energy Efficiency Starter Kit, to enhance the Program, increase customer satisfaction, and provide additional energy savings impacts for all customers.

### **E. Marketing Strategy**

The Company works through the vendor to market to schools. The marketing channels may include but are not limited to the following:

- Direct mail (letters to school administrators)
- Email
- Program Website
- Events or assemblies
- Printed materials for classrooms
- Social media promotions

These marketing efforts engage students and their families in energy conservation behavior and provide energy saving opportunities through the Energy Efficiency Starter kits.

### **F. Evaluation, Measurement and Verification**

An impact and process evaluation report for the Energy Efficiency Education Program was completed in the second quarter of 2017. The process evaluation of the Program included interviews with the program manager, implementer and teachers to assess program operations, and surveys from students's families to assess their awareness of and satisfaction with the Program and their follow through with installations and recommendations.

The impact evaluation verified gross energy savings and demand reductions of 276.4 kWh and .117 kW, respectively. Net impacts were 245.0 kWh and 0.104 kW. Free ridership for the program was estimated at 21% and spillover was 10%, which calculates to a NTG of 89%.

# Energy Efficient Lighting

## A. Description

The Energy Efficient Lighting Program partners with lighting manufacturers and retailers across North and South Carolina to provide marked-down prices at the register to DEP customers purchasing energy efficient lighting products. Starting in 2017, the Program removed CFLs and only offers LEDs and energy-efficient fixtures. The focus on LEDs aligns with changes in the market place and increases energy savings potential. Participation continues to be high, and the success of this Program can be attributed to high customer interest in energy efficiency, increased knowledge of the benefits associated with energy efficient lighting, and effective promotion of the Program.

As the Program moves into its eighth year, the Energy Efficient Lighting Program continues to incentivize customers to adopt a wide range of energy efficient lighting products, including LEDs and fixtures. Customer education is imperative to ensure customers are purchasing the right bulb for the application, to obtain high satisfaction with lighting products and to encourage subsequent purchases.

## Audience

The Program is available to existing residential and non-residential customers. Customers simply shop for their lighting needs at a wide variety of retail locations. Incentives are provided at the point of purchase.

## B & C. Impacts, Participants and Expenses

2017 YTD Results	Annual Forecast	Actual	Variations
Savings (MWH)	60,296	31,900	-28,396
Savings (MW)	9.90	4.60	-5.30
Participants		2,519,086	
2017 Program Expenses		\$12,236,465	

## D. Qualitative Analysis

### Highlights

For the period of January to December 2017, the Program incentivized a total of 2,519,086 measures, including 66,344 CFLs (carry over of sales from 2016); 2,230,548 LEDs and; 222,194 fixtures. The DEP Energy Efficiency Program had 19 lighting retail channels actively participating in 2017. While the top five retail channels account for 73% of the Program sales, all retail channels allow access to the Program for a diverse and geographically wide population of DEP customers. The Program is designed to reach 90% of customers within 30 miles of a participating retail location.

The Program continues to operate efficiently with 85% of overall Program costs going directly to customers in the form of incentives. Additionally, a total of 99% of the Program costs are spent on implementation and administration of the Program, including incentives and management fees. Therefore, only 1% is spent on marketing, labor and other costs.

### Issues

No issues at this time.

### Potential Changes

The Program will continue to evaluate the market and adjust products and incentive levels as necessary, focusing on specialty applications and strategically targeting underserved customers through select channels and events.

## E. Marketing Strategy

The Company will continue the Program marketing efforts in 2018 through the following:

- Point of Purchase materials at the participating retailer locations
- Duke Energy Progress and Program website
- General Awareness Campaigns
  - Bill Inserts
  - Email
  - Online Advertising
  - Paid advertising/mass media
  - Out of Home advertising
- Advertised events at key retailers including:
  - Direct mail
  - Email
  - Paid advertising/mass media (radio, newspaper, etc.)
  - Social media
  - In Store materials (fliers, bag stuffers, posters, banners, etc.)
- Community outreach events (home shows, sporting events, cultural events, etc.)

These marketing efforts are designed to create customer awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation. Additionally, marketing efforts related to in-store events are designed to motivate customer participation.

## F. Evaluation, Measurement and Verification

For the Retail Lighting evaluation, the combined DEC/DEP process and impact report is scheduled for completion in 2018. Both evaluations will consist of engineering estimates of the measures provided in the kits (DEC) or in retail channels (DEP).

## EnergyWise Home Program

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### A. Description

EnergyWise Home ("Program") allows Duke Energy Progress, LLC ("Company") to install load control switches at the customer's premise to remotely control the following residential appliances.

- Central air conditioning or electric heat pumps
- Auxiliary strip heat on central electric heat pumps (Western Region only)
- Electric water heaters (Western Region only)

For each of the appliance options above, Program participants receive an initial one-time bill credit of \$25 following the successful installation and testing of load control device(s) and an annual bill credit of \$25 in exchange for allowing the Company to control the listed appliances.

### Audience

The Program is available to all of the Company's residential customers residing in owner-occupied or leased, single-family, or multi-family residences.

### B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast (YE)	Actual	Variations
Savings (MWH)	-NA-	-NA-	-NA-
Savings (MW) <sup>1</sup>	339.48	342.68	3.20
Participants`		342,675	
2017 Program Expenses		\$13,004,957	

1 MW Savings at the meter include Summer MW for AC participants and Winter MW for Heat Strip and Water Heater Participants

### D. Qualitative Analysis

#### Highlights

After receiving regulatory approval from both the North Carolina Utilities Commission and the South Carolina Public Service Commission late in 2008, the Company officially launched the Program in April of 2009. Comverge, which specializes in integrated demand response solutions, was awarded the contract for the load management system software and switch technology, and GoodCents was awarded the contract for enrollment, field implementation, and call center support.

The program has met or exceeded its customer acquisition and impact goals every year since its inception. The program has achieved approximately 14% market penetration in eight years with over 168,000 participants and full shed load impacts of 347 MW summer and 13 MW winter at the meter.

#### Potential Changes

On December 21, 2017 the company filed a modification to the current Load Control Rider LC – SUM to allow customer-owned "smart" thermostats to function as load control devices. This Bring Your Own Thermostat (BYOT) Measure will be available to residential customers who agree to allow Duke Energy to temporarily control their eligible thermostats via the internet.



## EnergyWise Home Program

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### E. Marketing Strategy

The Company continues to deploy Program marketing efforts through various channels that include but are not limited to the following:

- Door-to-door canvassing
- Outbound calling
- Duke Energy Progress website
- Email
- Direct mail (letters and postcards to qualifying customers)

Additional detailed program information is located at <https://www.progress-energy.com/carolinas/home/save-energy-money/energy-efficiency-improvements/energy-wise/index.page?>

### F. Evaluation, Measurement and Verification

During the Collaborative Meeting on July 14, 2017, the Company presented the findings from the Summer 2016 evaluation of the Program. The evaluation installed loggers at a sample of participants' homes as well as utilizing a randomized control trial (RTC) approach to estimate impacts. Curtailing two distinct M&V groups on different days was a significant change in 2016. One group was activated for some events while the other was not, and therefore used as a control. Impacts were determined by a fixed effects regression analysis.

For the process evaluation, Navigant, the evaluator, conducted three surveys of EnergyWise participants within 24 hours of two of the Summer 2016 events and a placebo event, in which responding participants were asked the same questions on a comparable weather day when an event was not called.

Navigant is currently conducting the EM&V for the Winter program in the same manner used for the Summer of 2016 evaluation. Loggers were installed at a sample of participants' homes and a series of EM&V events have been conducted during the winter months. The next report will present the outcomes of this analysis.

# Multifamily Energy Efficiency Program

## A. Description

The Multifamily Energy Efficiency program ("Program") provides energy efficient lighting and water measures to reduce energy usage in multi-family properties. The Program allows Duke Energy Progress (the "Company") to target multi-family apartment complexes with an alternative delivery channel. Franklin Energy, the program administrator, or the property management staff installs measures in permanent fixtures. Franklin Energy is in charge of outreach, direct installations and customer care.

The Program offers LEDs including A-Line, globes and candelabra bulbs and water measures such as bath and kitchen faucet aerators, water saving showerheads and pipe wrap. Water measures are available to customers with electric water heating. All measures assist with reducing maintenance costs while improving tenant satisfaction by lowering energy bills.

The Program offers a direct install ("DI") service by Franklin Energy. Franklin Energy installs the lighting and water measures during scheduled visits. Crews carry tablets to keep track of what is installed in each apartment. Property managers also have the option to complete the installations during routine maintenance visits. The property maintenance crews track the number of measures they install and report back to Franklin Energy. Franklin Energy then validates the information and submits the results to the Company.

After the installations are completed, Quality Assurance ("QA") inspections are conducted on 20 percent of the properties that completed installations in a given month. The QA inspections are conducted by an independent third party.

## Audience

The target audience is managers of properties with four or more units served on an individually metered residential rate schedule. In order to receive water measures, apartments must also have electric water heating.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	9,937	13,879	3,942
Savings (MW)	0.97	1.92	.94
Participants		297,837	
2017 Program Expenses		\$2,516,608	

## D. Qualitative Analysis

### Highlights

In 2017, the Program completed installations at 170 properties, accounting for close to 16,101 units. The Program installed 297,837 measures with lighting measures representing 69 percent of the total number of installations and water measures representing 31 percent. The Program successfully transitioned to LEDs in 2017 and these are well received by both tenants and property owners.

### Issues

There are no issues to report.

## Potential Changes

In 2018, the Program will consider offering additional LED bulbs to serve track and recessed lighting fixtures. Additionally, the Program has received approval to remove the requirement that a property must have a minimum of four conjoined units from the Multi-family program tariff so that all units within a complex can be served.

## E. Marketing Strategy

As program implementer, Franklin Energy is responsible for marketing and outreach to property managers. They primarily use outbound calls and on-site visits to understand a property manager's initial interest in the program. The Program also utilizes local apartment association memberships to access contact information for local properties and to attend association trade shows and events to promote the program. The Program was an exhibitor in the May 2017 AANC Conference in Raleigh, NC and generated over 200 leads for the region.

A Multi-Family Energy Efficiency public website landing page is available for property managers to learn more about the Program. A program brochure and a frequently asked question sheet are available for download.

Additionally, a Social Media campaign ran through May using Facebook ads to target property decision makers and trade groups in NC and SC zip codes. Following the campaign, results were positive with solid click thru rates on the Multifamily website, over 150 new page views, an increase in call center leads, and positive customer comments on Social Media.

Once property managers enroll, Franklin Energy provides a variety of marketing tools to create awareness of the Program among the tenants, including letters to each tenant informing them of what is being installed and when the installations will take place. Tenants also receive educational brochures after the installation is complete. The brochure includes a customer satisfaction survey to return to Duke Energy to provide valuable program feedback. An online version is also available.

At the conclusion of the installation, window clings are placed in strategic areas throughout the property. Placement of the window clings at a minimum will be at the common areas entry and each residential building on site (to the extent applicable). Using the window clings ensures that the program and Duke Energy are recognized long after the installation has taken place.

## F. Evaluation, Measurement and Verification

No evaluation activity in 2018 is planned at this time.

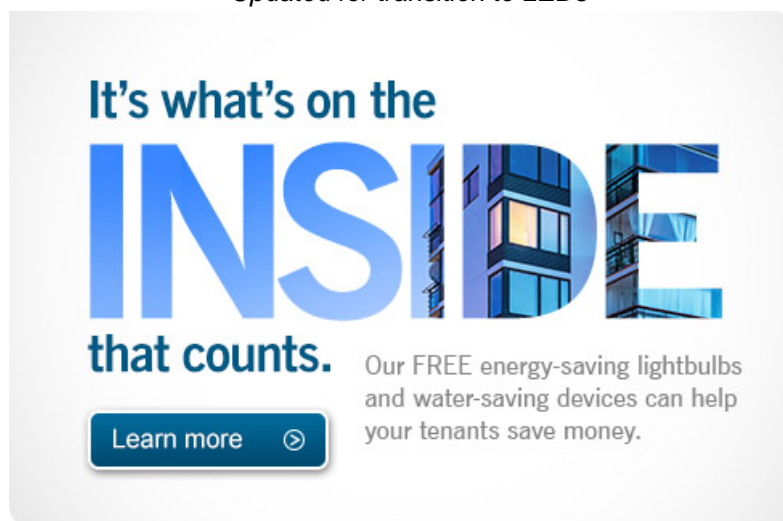
# Multifamily Energy Efficiency Program

The key research objectives are to conduct impact and process evaluations, as well as a net-to-gross analysis. The evaluation will include interviews with program staff and customer surveys. An engineering-based analysis, augmented with on-site will be used to estimate the impacts of the program. Subject to change by the independent third-party evaluator, the analysis is expected to be supplemented by on-site field verification of program measures, and will be consistent with the International Performance Measurement and Verification Protocol (IPMVP) Option A.

## Appendix

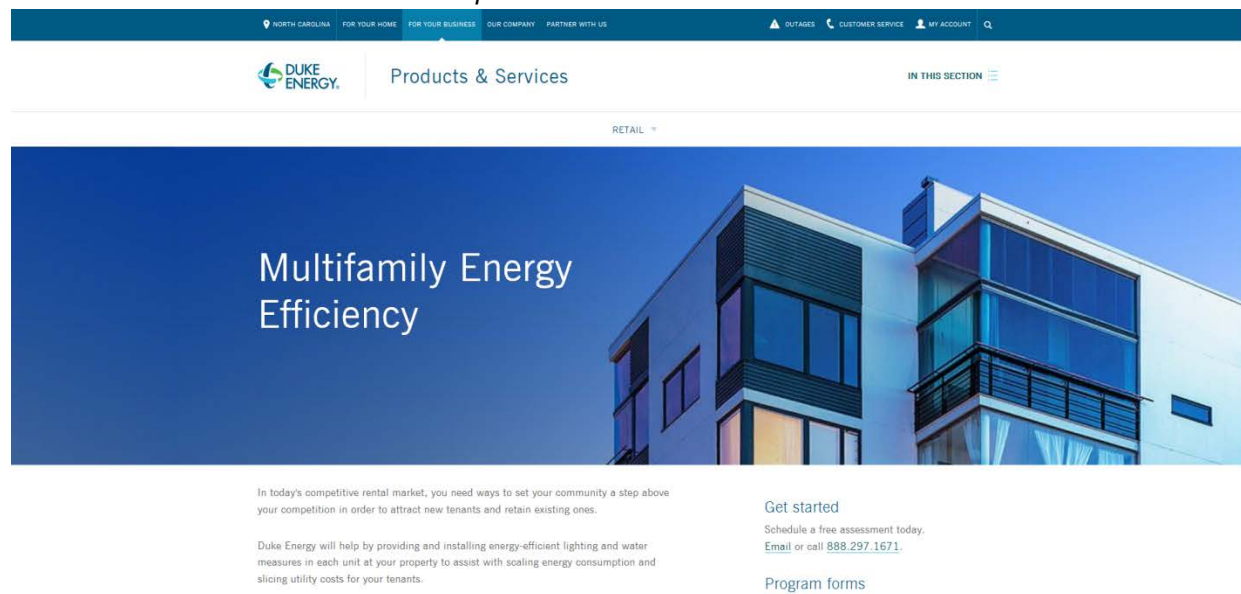
### State Landing Page Promotion (Hero Banner)-

*Updated for transition to LEDs*



### Program Web Page

*Updated for transition to LEDs*



# Multifamily Energy Efficiency Program

## Program Brochure- Updated for transition to LEDs



### Multifamily Energy Efficiency Program

It's what's on the inside that counts. Our FREE energy-saving lightbulbs and water-saving devices can help your tenants save money.

**Contact us today!**

Phone: 888.297.1671 | Website: [duke-energy.com/multifamily](http://duke-energy.com/multifamily)  
Email: [dukeenergymultifamilywp@franklinenergy.com](mailto:dukeenergymultifamilywp@franklinenergy.com)

Note that this program is administered by Franklin Energy, a subsidiary of Duke Energy, with expertise in the installation of energy-saving products.  
©2018 Duke Energy Corporation

**Start saving now with the latest FREE energy-saving products.**

**Multifamily Energy Efficiency Program**  
If you are a Duke Energy customer, your tenants may receive the following energy-saving products – installed in each multifamily unit at no cost.

**Straight Line, Globe and Candelabra LED Lightbulbs**  
Use up to 90 percent less energy and can save at least \$80 over their lifetime in energy costs compared to traditional incandescent bulbs. A popular residential option, ENERGY STAR® light-emitting diodes, or LEDs, can be installed in bathrooms, permanent fixtures, ceiling fans, chandeliers and other high-voltage areas.

**Hot Water Pipe Wrap**  
Reduces water and energy use by preventing heat loss while hot water travels through your building's pipes.\*

**Bathroom and Kitchen Faucet Aerators**  
Use up to 55 percent less water than traditional 2.2-gpm showerheads, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.\*

**Water-saving Showerheads**  
Use up to 40 percent less water than traditional 2.5-gpm showerheads, which can reduce water and sewer costs, as well as the amount of energy used to heat the water.\*

\*If water is heated by electricity, savings are not guaranteed.

**FAQs for Property Managers**

**What does the install process look like?**  
Our install team will arrive at your property at 8:45 a.m., on the day of your scheduled installations and be ready to begin by 9 a.m. The install team will work with the member of your staff who is responsible for handling all the keys. The average time spent in each tenant unit is approximately five to eight minutes depending on the layout and products being replaced. We will leave a printed sheet for each resident explaining what was installed and providing an opportunity for feedback through a survey. It's that simple and fast!

**Is it really FREE?**  
Yes! This program is part of many programs Duke Energy offers its customers from funds set aside to help reduce energy use. Neither you nor your tenants have to pay an additional penny for our team to install these energy-saving products at your community. We warmly appreciate the opportunity to partner with you in helping save tenants money and making your community more energy efficient!

**What if tenants opt out?**  
Even though the fixtures being replaced belong to the property, Duke Energy will not enter a premise if a resident opts out of the energy savings program. The most common reason for opting out is the tenant does not want a particular product installed. However, this is not an "opt-out" proposition, so your residents are able to opt in for certain eligible products. We will not replace any personal items, such as custom showerheads, so residents can be assured their belongings will be just as they left them. If your tenants have specific questions, our customer service representatives would be happy to help.

**What is the next step?**  
Call 888.297.1671 or email [dukeenergymultifamilywp@franklinenergy.com](mailto:dukeenergymultifamilywp@franklinenergy.com) to schedule an appointment for an energy assessment, energy assessment report and installation of energy-saving products – all at no cost to you or your tenants!

Note that this program is administered by Franklin Energy, a subsidiary of Duke Energy, with expertise in the installation of energy-saving products.  
©2018 Duke Energy Corporation

**Window Cling-  
New for 2016**

# Multifamily Energy Efficiency Program

We are now energy  
efficient thanks to  
Duke Energy!

This property participated in Duke Energy's  
Multifamily Energy Efficiency program and now  
has energy-efficient products that benefit you.



**Tenant Leave Behind-**  
*Updated for transition to LEDs*

Multifamily Energy Efficiency Program



Based on an assessment of your unit, these products were selected to offset your  
monthly energy usage:

## Electric



**Straight Line, Globe  
and Candelabra LED  
Lightbulbs**  
LEDs last longer and  
use up to 90 percent  
less energy than  
incandescent bulbs.

## Water

(Water-saving products are only installed in properties that use electricity to heat water.)



**Faucet aerators\***  
Faucet aerators installed  
in the kitchen and  
bathroom use up to 55  
percent less  
water than  
standard  
faucet  
aerators.



Black handle allows  
for adjustable flow



**Showerhead\***  
An energy-efficient  
1.5-gpm showerhead will  
use less water than a  
regular showerhead,  
which means you  
can also use  
less energy to  
heat the water.



Adjustable  
flow



**Pipe wrap\***  
Hot water pipe wrap  
reduces water and energy  
use by preventing heat  
loss while hot water  
travels through the pipes.

\*Provided only to properties that use electricity to heat water.

For more information, contact the Multifamily Energy Efficiency Program at 888.297.1671 or  
dukeenergymultifamilyeep@franklinenergy.com. Or, visit [duke-energy.com/multifamily](http://duke-energy.com/multifamily).

Note that this program is administered by Franklin Energy, a contractor of Duke Energy with experience in the installation of home energy-saving products.  
©2016 Duke Energy Corporation

## Customer Survey

Thank you for participating in this program. We'd like to know how we did installing  
your new energy-saving products. Please complete the below survey and mail it to  
us. The survey is also available online at [duke-energy.com/multifamilysurvey](http://duke-energy.com/multifamilysurvey).

Property name: \_\_\_\_\_  
Address: \_\_\_\_\_ Unit No.: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_  
Email: \_\_\_\_\_  
I was notified in advance of this work. ☐ Yes ☐ No  
I was at home while the technicians installed the products. ☐ Yes ☐ No  
The technicians' ID badges were visible. ☐ Yes ☐ No ☐ N/A  
I am interested in receiving additional information on energy efficiency. ☐ Yes ☐ No  
What effect has your participation in the Multifamily Energy Efficiency Program had on your overall satisfaction  
with Duke Energy? ☐ Positive effect ☐ Negative effect ☐ No effect ☐ Don't know  
Using a scale of 1 to 10, please rate your level of agreement with the following statements (circle your response):

	1	2	3	4	5	6	7	8	9	10
Overall, I was satisfied with the Duke Energy Multifamily Energy Efficiency Program.										
The technicians respected my property and left it in good condition.										
The technicians treated me with courtesy.										
The technicians were knowledgeable about the products and answered my questions.										
The leave-behind materials are informative.										

Comments: \_\_\_\_\_





# Home Energy Improvement Program

## A. Description

The purpose of this Program is to offer customers a variety of energy conservation measures that increase energy efficiency in existing residential dwellings. The Program utilizes a network of participating contractors to do the following: (1) to encourage the installation of high efficiency central air conditioning (AC) and heat pump systems with optional add on measures such as Quality Installation and Smart Thermostats, (2) to encourage attic insulation and sealing, (3) to encourage the installation of heat pump water heaters, and (4) to encourage high efficiency variable speed pool pumps.

Incentives are only applicable to measures installed by a contractor approved by Company, with the exception of high efficiency room air conditioners which may be self-installed.

Duke Energy contracts with a third party vendor for application processing, incentive payment disbursement, and customer/contractor support.

## Audience

The Program is available to customers whose premise is at least one year old, who are served on a residential rate, and who meet the service delivery qualifications.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	2,371	7,001	4,630
Savings (MW)	0.94	1.88	0.94
Participants		26,222	
2017 Program Expenses		\$7,007,594	

## D. Qualitative Analysis

### Highlights

The Program's tiered incentive structure continues to receive a positive reaction from customers as well as Trade Allies. Reporting continues to show that the increased incentive amounts for higher SEER equipment has encouraged customers to have higher efficiency equipment installed properly and managed well.

The Referral Channel, which provides free, trusted referrals to customers who are trying to find reliable qualified contractors, has successfully generated roughly 10,000 customer referrals through the first half of 2017. Customers whose referral generates a sale for the Trade Ally were asked to rate their experience with the Referral Channel. The Referral Channel achieved a 4.68 out of 5 rating during 2017 and expects to improve that score in 2018.

Variable speed pool pumps have also been successful offering, and the Company has been successful in recruiting contractors to support the new measure and is looking to expand coverage throughout the jurisdiction.

### Issues

The participation of the Trade Ally network is vital to the success of the Program. The Program aims to transform the market by shifting the market away from some of the more commonly utilized practices which rely heavily on decentralized training and varying knowledge levels; imprecise, manual field calculations; Instead, the Program encourages Trade Allies to train and certify technicians to use quality diagnostic instruments and

# Home Energy Improvement Program

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processes. The Company has not seen significant acceptance with the diagnostic-based measures because of the need for expensive equipment, the need to obtain additional industry certifications and to alter current business practices.

## **E. Marketing Strategy**

Promotion of the Program is primarily targeted to HVAC and home performance contractors. Trade Allies are integral to the Program's success because they interface with the customer during the decision-making event.

Program information and Trade Ally enrollment links are available on the Program's website to educate customers about the Program and encourage participation. By increasing the overall awareness of the Program and the participation of Trade Allies, more customers will consider the benefits of the Program at time of purchase.

The Company implemented several customer marketing campaigns during 2017 to leverage channels such as bill inserts and email messaging. Other channels, such as a paid search and special offer direct mail campaigns with eligible Trade Allies, have also created awareness and reduced the customers' incremental costs associated with the purchase of an efficient product/service.

## **F. Evaluation, Measurement and Verification**

Due to broader changes in the Program in 2016, and subsequent measure removals in 2017, there are no planned EM&V activities associated with the Program in 2018.



# My Home Energy Report

## A. Description

My Home Energy Report (MyHER) helps customers put their energy use in perspective with simple and easily understood graphics that compare customers' energy use with homes of similar size, age and heating source. The reports motivate customers to change their behaviors and reduce their consumption by presenting them with timely tips and program offers.

My Home Energy Report Interactive links customers to a portal where they can complete a home profile, set savings goals and track their progress, get answers to their personal energy questions from an energy expert, and share their energy saving tips with other customers. Customers can also see how much electricity they might use in the coming months based on their usage history.

## Audience

Program participants are identified through demographic information and must reside in an individually-metered, single-family residence served on a residential rate schedule and must have at least 13 months of electric usage with the Company. These customers receive up to 8 paper reports per year. Electronic versions of the report are distributed 12 times a year for customers who have enrolled in My Home Energy Report Interactive and who have a registered email address with the Company.

Customers who live in an individually-metered, multi-family dwelling served on a residential rate schedule and who have at least 13 months of electric usage with the Company may also participate. Multi-family customers who have registered their email address with the Company receive 4 printed reports and 12 electronic reports throughout the year. Multi-family customers without a registered email address with the Company receive 6 printed reports throughout the year with a strong call to action to provide their email address to receive more energy efficiency tips and information through additional reports delivered.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	127,419	112,133	-15,286
Savings (MW)	34.62	18.99	-15.63
Participants		795,734	
2017 Program Expenses		\$6,758,129	

## D. Qualitative Analysis

As of December 31, 2017, over 708,000 DEP single-family customers and 88,000 multifamily customers were receiving the MyHER, and nearly 13,000 DEP single-family customers and 500 multifamily customers were enrolled in the MyHER Interactive portal.

## E. Marketing Strategy

Since the MyHER paper report is an opt-out program, customers who meet the eligibility requirements automatically receive the report. Less than .001% of customers chose to opt out. The MyHER Interactive portal is an opt-in portal. Marketing for the portal includes email campaigns and messages in the paper report and on its envelope.

The paper and electronic versions of MyHER were refreshed in September 2017. The report now provides customers a view of their forecasted disaggregated usage so they will know where to focus their savings efforts. The report is also more crisp and streamlined with visuals added for all actions and tips.

## F. Evaluation, Measurement and Verification

The next Evaluation, Measurement and Verification report is scheduled for 2019.

# Residential Energy Assessments

## A. Description

The Home Energy House Call Program ("Program") is offered under the Energy Assessment Program where Duke Energy Progress, LLC (the "Company") partners with several key vendors to administer the Program.

The Program provides a free in-home assessment performed by an energy specialist certified by the Building Performance Institute ("BPI"). The BPI-certified energy specialist completes a 60- to 90-minute walk through of a customer's home and analyzes energy usage to identify energy savings opportunities. The energy specialist discusses behavioral and equipment modifications that use less energy. The customer also receives a customized report identifying actions the customer can take to increase their home's efficiency. The following are examples of recommendations that might be included in the report:

- Turn off vampire load equipment when not in use.
- Use energy efficient lighting.
- Use a programmable thermostat to manage heating and cooling usage.
- Replace old equipment.
- Add insulation and seal the home.

In addition to a customized report, customers receive an energy efficiency starter kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures such as energy efficient lighting, a shower head, faucet aerators, outlet/switch gaskets, weather stripping and a booklet of energy saving tips.

## Audience

Residential customers that own a single-family residence with central air, electric heat or an electric water heater and that have at least four months of billing history are eligible to participate in the Program.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	2,980	5,183	2,203
Savings (MW)	0.50	0.87	0.37
Participants		38,090	
2017 Program Expenses		\$1,865,144	

## D. Qualitative Analysis

### Highlights

The program conducted 6,687 assessments and installed 31,403 additional LEDs in 2017. The program continues to focus on maximizing measures installed as well as cross promoting other Duke Energy programs and offerings.

### Issues

The program continues to coordinate closely with the vendor to monitor incoming demand, to balance marketing and to ensure adequate appointment slots are available.

## **Potential Changes**

The Program is continuing to optimize the online scheduling tool to enhance the customer experience and to evaluate the kit offerings to maximize savings and impacts as well as the customers' acceptance. Additionally, cost-effective approaches to including thermal imaging as part of the assessment, custom measures installations, kit upgrades, multifamily options, and post-assessment follow ups with recommendations and referrals are also being considered. Future modifications may also include changing the requirement that eligible customers have four months of billing history and offering a tiered audit option.

Currently, Program implementers are evaluating the need for a plan to obtain customer feedback proactively and identify improvement or EM&V opportunities.

## **E. Marketing Strategy**

The Program continued to use a multichannel marketing approach including targeted mailings to pre-qualified residential customers, bill inserts, online promotions and online video. Examples of online messages, bill inserts and direct mail promotions are available in the appendix. For those who elect to receive offers electronically, email marketing is used to supplement direct mail. In between larger initiatives, such as bill inserts, the program utilizes direct mail which can easily be modified based on demand. Core messaging is simple and focuses on key benefits (a free energy assessment from Duke Energy can help save energy and money while also increasing comfort) and three easy steps (you call, we come over, you save).

Home Energy House Call program information and an online assessment request form are available at [www.duke-energy.com](http://www.duke-energy.com).

## **F. Evaluation, Measurement and Verification**

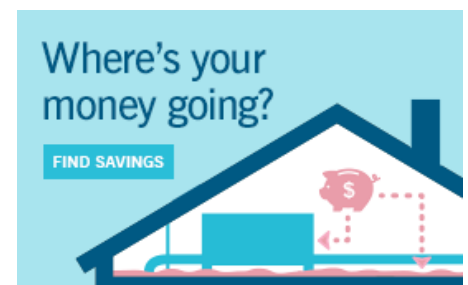
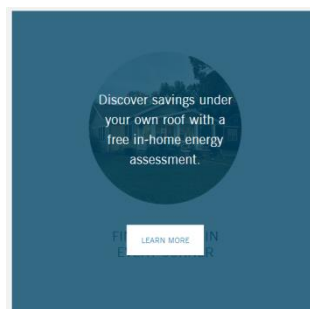
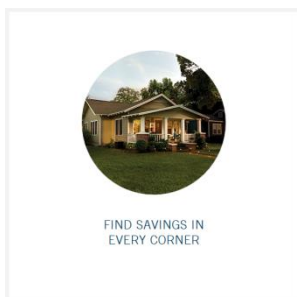
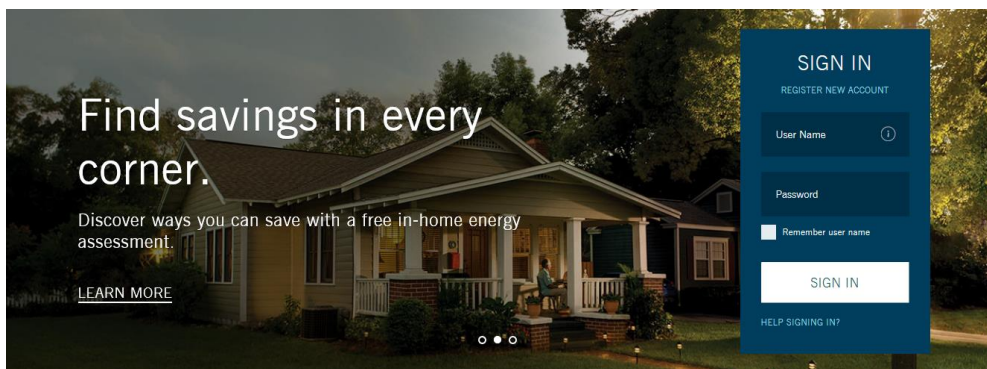
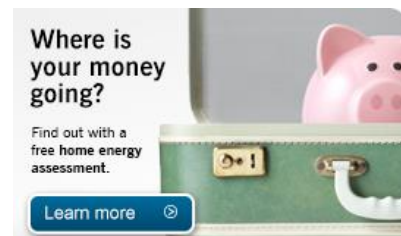
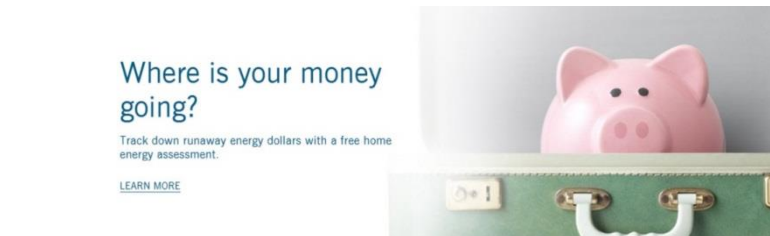
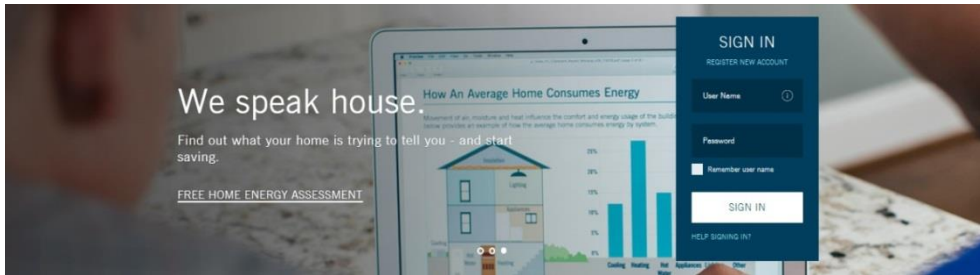
Due to the fact that the Program launched in 2016, no EM&V activity is planned in 2017. The first evaluation report for the program is tentatively scheduled for the second half of 2018.

# Residential Energy Assessments

## G. Appendix

2017 :

### Online Banners:





# Residential Energy Assessments

Email:

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**What's your home trying to say?**  
Find out with a free energy assessment.

Why is one room drafty and the other stuffy? Is your HVAC supposed to sound like that? Never fear. We speak your home's language.

When you get your FREE Home Energy House Call, we'll analyze your home's energy use and show you how to improve your home's comfort and save on your monthly bill. We'll check for air leaks, insulation, HVAC efficiency and more.

[SIGN UP](#)

OR CALL 877.388.7676

**BONUS: GET A FREE ENERGY SAVINGS KIT**

Free LEDs, weatherstripping and more can help you start saving right away.



Available for eligible homeowners. See if you qualify.

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**Where is your money going?**

Find out with a free Home Energy House Call. How much money is escaping your house each month through drafty windows, leaky ductwork and other hidden energy wasters?

[FIND OUT FOR FREE](#)

We'll help you track down – and save – runaway energy dollars and make your home more comfortable.

**Here's what you'll get:**



- [FREE in-home energy assessment.](#)
- [Information on \\$1,000 in home improvement rebates.](#)
- [FREE energy efficiency starter kit!](#)

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It's time to reveal your hidden energy wasters. Trouble viewing? [View in browser](#)



**What will a HOME ENERGY ASSESSMENT reveal?**

What will you discover when our energy expert performs your FREE home energy assessment? We'll look high and low to find all your home's hidden energy wasters and help you find ways to save. You'll also get a free energy efficiency starter kit with free LEDs and more – and info on up to \$1,000 in home improvement rebates.

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# Residential Energy Assessments

Bill I



How much money is escaping your house each month through drafty windows and doors, leaky ductwork and other hidden energy wasters?

### Home Energy House Call

A free home energy assessment can reveal hidden energy wasters that are letting energy and money literally slip through the cracks. A \$180 value! Sign up and get:

- A free home energy assessment
- An energy savings kit with LEDs, a showerhead and more
- Information on over \$1,000 in home improvement rebates

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### Schedule your FREE Home Energy House Call today.

Complete and return the attached card \* or call 844.346.4366 or visit [duke-energy.com/FindMyMoney](http://duke-energy.com/FindMyMoney)

Name on account \_\_\_\_\_  
Address \_\_\_\_\_  
City/State/ZIP \_\_\_\_\_  
Daytime phone \_\_\_\_\_  
Evening phone \_\_\_\_\_

To qualify, you must:

- Be a Duke Energy residential customer.
- Own a single-family home and have lived there for at least four months. (Condos, townhomes, duplexes and mobile homes do not qualify.)
- Have central air, electric heat or an electric water heater.



### Find savings in every corner.

Discover ways you can save with a **FREE** in-home energy assessment.

### Home Energy House Call



**Free** in-home energy assessment and energy savings kit for eligible homeowners – **\$180 value!**

Your **FREE** expert will:

- ✓ Check for air leaks
- ✓ Inspect insulation levels
- ✓ Examine your heating/cooling system


Sign up today! Call 855.739.9114 or visit [duke-energy.com/FreeAudit](http://duke-energy.com/FreeAudit) to see if you qualify.

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### Where is your money going?

How much money is escaping your house each month through drafty windows, leaky ductwork and other hidden energy wasters? Find out for **FREE**.



### Home Energy House Call

We'll help you track down – and save – runaway energy dollars and help make your home more comfortable. You'll get:

- ✓ A free home energy assessment
- ✓ A free energy savings kit
- ✓ Info on up to \$1,000 in home improvement rebates

Sign up today! Call 855.739.9114 or visit [duke-energy.com/RunawayMoney](http://duke-energy.com/RunawayMoney) to see if you qualify.

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### Where is your money going?

Find out with a **FREE** in-home energy assessment.

### Learn how to prevent energy dollars from escaping your home with a free energy assessment.

A free home energy assessment\* can reveal hidden energy wasters that are letting energy and money literally slip through the cracks. A \$180 value! Sign up and get:

- Free in-home energy assessment
- Free energy savings kit
- Info on up to \$1,000 in home improvement rebates

\*Available for eligible homeowners.

Schedule today at [duke-energy.com/MyMoney](http://duke-energy.com/MyMoney) or call 855.739.9114.

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# Residential Energy Assessments

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## Pandora





## Residential New Construction

### A. Description

The purpose of this Program is to incent new construction that falls within the 2012 North Carolina Residential Building Code to meet or exceed the 2012 North Carolina Energy Conservation Code High Efficiency Residential Option ("HERO"). If a builder or developer constructing to the HERO standard elects to participate, the Program offers the homebuyer an incentive guaranteeing the heating and cooling consumption of the dwelling's total annual energy costs. Additionally, the Program incents the installation of high-efficiency heating ventilating and air conditioning ("HVAC") and heat pump water heating ("HPWH") equipment in new residential construction.

### Audience

The Program is available to builders and developers installing high-efficiency HVAC and HPWH equipment in new single family, manufactured, and multi-family residential housing units that are served under any of the Company's residential rate schedules.

The program is also available to builders and developers of new single family and multi-family residential dwellings (projects of three stories and less) that comply with all requirements of the 2012 HERO standard and are served under any of the Company's residential schedules. Manufactured housing, multi-family residential housing projects over three stories in height, and any other dwellings which do not fall within the 2012 North Carolina Residential Building Code, are not eligible for any whole-house incentives.

The Program also supports the initial homeowner for any home constructed to meet or exceed the HERO standard when the builder or developer elects to extend a heating and cooling energy usage guarantee to the homeowner. At the sole option of the builder or developer, homeowners may be offered a Heating and Cooling Energy Usage Limited Guarantee for homes with a HERS Index Score verified by a certified HERS rater calculating the heating and cooling energy usage that the home should use during an average weather year.

### B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	9,586	14,181	4,595
Savings (MW)	4.15	6.11	1.96
Measures		5,142	
2017 Program Expenses		\$11,678,412	

### D. Qualitative Analysis

#### Highlights

The Program's move to a whole-house incentive structure that pays incentives to builders for HERO-compliant homes based solely on annual kWh savings continues to drive builders toward increasing savings. The Program requested approval from RESNET to offer 34 courses online for rater CEU's. The Program provided on-site instruction to over 250 builders and trade allies. In the future, the Program plans to implement a scorecard to rate the participating raters on various metrics.

Currently there are 431 builders and 24 approved raters participating. The top 10 builders in the Program contribute 40% of the savings. ICF is responsible for the operational oversight of Home Energy Raters and builders or developers participating in the Program.

## Residential New Construction

	Whole-House Eligibility Requirement	Incentive
HERO	Meet 2012 NCECC HERO standards	\$750
HERO plus HERS Score	Meet HERO standards and submit confirmed annual kWh savings from the Energy Summary Report.	\$0.90/kWh
	Equipment Incentive Description	Incentive
Tier 1	AC or heat pump with SEER (Seasonal Energy Efficiency Ratio) of 14 or greater but less than 15. The HVAC system must meet the Quality Installation Standard of 90%. High Efficiency Heat Pumps: The unit(s) shall be a minimum SEER of 14 with ECM. High Efficiency Central AC: The unit(s) shall be a minimum SEER of 14 with ECM.	\$250 per unit
	Quality Installation Standard (Optional for Tier 2).	\$75 per unit
Tier 2	AC or heat pump with SEER of 15 or greater.	\$300 per unit
Heat Pump Water Heater	ENERGY STAR <sup>®</sup> qualified HPWH(s) with minimum Energy Factor of 2.0.	\$350 per unit

### Issues

Air sealing in townhomes and multifamily projects continues to be a sticking point for many builders. While the North Carolina building code has specific requirements for fire-rated assemblies, there are different approaches being used to meet these requirements, and the acceptance and interpretations of these assemblies differs among code officials by jurisdiction. To assist builders, Program staff will work with various resources to identify code compliant separation wall assemblies and accepted air sealing methods. This information will provide builders and raters recommendations that will not only meet the code but also increase compliance with program standards.

Currently REM/Rate, a type of energy modeling software, is being used by most participating raters. Program will be evaluating Ekotrope, a home energy rating and analysis software, that is currently developing HERO and NC baseline reference homes to use in a REM savings comparison analysis. Reference homes should be delivered in 2018 with Program analysis afterwards.

### Potential Changes

The Program is considering modifying the incentives and eliminating non-cost-effective measures and measures that are no longer applicable. Those changes may include the following:

- Eliminate the existing tier structure for HVAC incentives;
- Remove incentives for HVAC equipment with a SEER of less than 15;
- Remove Quality Installation and Heat Pump Water Heater measures, as they are typically included when building to HERO standards and rarely implemented on a stand-alone basis.

### E. Marketing Strategy

The Company drove awareness in 2017 through various marketing channels that include but are not limited to the following:

- Duke Energy Progress website
- Community outreach events/HBA Parade of Homes
- Social media promotions

These marketing efforts are designed to create customer awareness of builders participating in the Program and to educate customers on the quality, comfort and energy savings these homes offer. Please see the Appendix for examples.

## G. Appendix

Exhibit 11  
Page 27 of 53

# Neighborhood Energy Saver Program

## A. Description

The purpose of Duke Energy Progress's (DEP) Neighborhood Energy Saver program (the "Program") is to reduce energy usage through the direct installation of energy efficiency measures within the households of income-qualifying residential customers. The Program utilizes Honeywell Building Solutions, which was awarded the contract through a competitive bid process, to (1) to identify appropriate energy conservation measures through an on-site energy assessment of the residence, (2) to install a comprehensive package of energy conservation measures at no cost to the customer, and (3) to provide one-on-one energy education. Program measures address end-uses in lighting, refrigeration, air infiltration and HVAC applications.

Program participants receive a free energy assessment of their homes followed by a recommendation of energy efficiency measures to be installed at no cost to the resident. A team of energy technicians install applicable measures and provide one-on-one energy education about each measure, emphasizing the benefit of each and recommending behavior changes to reduce and control energy usage. The goal is to serve a minimum of 4,500 households each year.

## Audience

The Program is designed for individually-metered residential homeowners and tenants within DEP. Implementation of the program is done in neighborhoods designated by DEP. Income-eligible neighborhoods must have at least 50% of households with income equal to or less than 200% of the poverty level set by the U.S. Department of Energy. Participants are only able to participate in the Program once.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	1,651	2,093	443
Savings (MW)	0.29	0.32	0.03
Participants		4,873	
2017 Program Expenses		\$1,782,459	

## D. Qualitative Analysis

### Highlights

In 2017, the Program offered free walk-through energy assessments to 5 qualifying neighborhoods—Rockingham, NC; Sumter, SC; Clinton, NC; Goldboro, NC; and Raleigh, NC—serving 4,873 customers. Neighborhood events included support from community groups and speakers such as elected officials, community leaders and community action agency representatives.

Starting April 2017, the program transitioned from CFLs to LEDs.

The program has been very successful and widely accepted by the eligible Duke Energy Progress customers. Nearly 70 percent of the eligible customers in the neighborhoods where the program has been offered have participated.

### Issues

The program continues to operate with minimal issues. The implementers are constantly striving to install the best quality measures and to use techniques that will motivate better customer behavior responses and participation.

## Neighborhood Energy Saver Program

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### Potential Changes

The program received approval to replace installing CFL's with LEDs in early 2017. This change was implemented in the field with the transition to the Clinton, NC neighborhood. The addition of measures, such as insulation, duct sealing, and HVAC tune up are being reviewed for inclusion.

### E. Marketing Strategy

Current methods of marketing the program have been very successful in driving participation. The Company will continue the following marketing strategies in 2018:

- Direct mail (letters and postcards to qualifying customers)
- Secure local support from community leaders and organizations
- Community outreach events
- Publicized kickoff events
- Door-to-door canvassing

These marketing efforts are designed to create customer awareness of the Program, educate customers on energy saving opportunities and emphasize the convenience of Program participation.

### F. Evaluation, Measurement and Verification

The impact and process evaluations for Neighborhood Energy Saver Program Year 2015 were completed in January 2017. The process evaluation included interviews with program management and field verification surveys conducted with customer participants.

The impact evaluation consisted of a review of deemed savings, installation verification and persistence, engineering estimates of annual per-customer savings, and a billing analysis. For the billing analysis, program participants in 2016 were used as a control group for comparison to participants in 2015 (treatment group). Note that a billing analysis that uses an appropriate comparison group incorporates the effects of free ridership and spillover, thus resulting in the program net savings estimates. In addition, a billing analysis captures savings due to behavioral changes.

Verified evaluation results include net energy savings per participant of 430 kWh, and summer and winter demand impacts of .298 kW and .340 kW, respectively.

No evaluation activity is expected until late 2018 with a final evaluation report scheduled for 2019.



## Non-Residential Smart \$aver Program

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### A. Description

The Non-Residential Smart \$aver Program ("Program") provides incentives to Duke Energy Progress, LLC's ("DEP" or the "Company") commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment.

Commercial and industrial customers can have significant energy consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to reduce the cost differential between standard and high efficiency equipment so that customers see a quicker return on their investments into high efficiency equipment and so that the money they save on utility bills can be reinvested in their businesses. Incentives are determined based on the Company's modeling of cost effectiveness over the life of the measure. In addition, the Program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products.

The Program provides incentives through prescriptive measures, custom measures and assessment/ technical assistance.

#### Prescriptive Measures:

Customers receive incentive payments after they install certain high efficiency equipment from the list of pre-defined measures, including lighting; heating, ventilating and air conditioning equipment; and refrigeration measures and equipment. A list of eligible equipment and measures and specific incentive amounts are available at the Program website: <https://www.duke-energy.com/business/products/smartsaver>.

#### Custom Measures:

The Smart \$aver Custom Program is designed for customers with electrical energy-saving projects involving more complicated or alternative technologies or measures not covered by the Non-Residential Smart \$aver Prescriptive Program. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance.

Unlike the Non-Residential Smart \$aver Prescriptive Program, the custom program requires pre-approval prior to the project initiation. Proposed energy efficiency measures may be eligible for customer incentives if they clearly reduce electrical consumption and/or demand.

The two approaches for applying for incentives in this Program are Classic Custom and Custom-to-Go, depending on the method by which energy savings are calculated. The documents required as part of the application process vary slightly as well.

Currently the application forms listed below are located on the Company's website under the Smart \$aver® Incentives (Business and Large Business tabs).

- Custom Application, offered in word and pdf format.
- Energy savings calculation support:
  - Classic Custom excel spreadsheet approach (> 700,000 kWh or no applicable Custom-to-Go calculator)
    - Lighting worksheet (excel)
    - Variable Speed Drive (VFD) worksheet (excel)
    - Compressed Air worksheet (excel)
    - Energy Management System (EMS) worksheet (excel)
    - General worksheet (excel), to be used for projects not addressed by or not easily submitted using one of the other worksheets
  - Custom-to-Go Calculator approach (< 700,000 kWh and applicable Custom-to-Go calculator)
    - HVAC & Energy Management Systems
    - Lighting
    - Process VFDs
    - Compressed Air



## Non-Residential Smart \$aver Program

### Energy Assessments and Design Assistance:

Incentives are available to assist customers with energy studies such as energy audits, retro commissioning, and system-specific energy audits for existing buildings and with design assistance such as energy modeling for new construction. Customers may use a contracted Duke Energy vendor to perform the work or they may select their own vendor. Additionally, the Program assists customers who identify measures that may qualify for Smart \$aver Incentives with their applications. Pre-approval is required.

The Company contracts with AESC to perform technical reviews of applications. All other Program implementation and analysis is performed by Duke Energy employees or direct contractors.

### Audience

This Program is designed for all of the Company's non-residential customers billed on an eligible Duke Energy Progress rate schedule.

### B & C. Impacts, Participants and Expenses

2017 Year-End Results	Forecasted	Actual	Variations
Savings (MWH)	60,601	75,804	15,203
Savings (MW)	9.60	10.15	.56
Participants		1,757,525	
2017 Program Expenses		\$21,820,773	

### D. Qualitative Analysis

#### Highlights

The Program has continued to align the company's commercial energy efficiency portfolio in the two operating companies in the Carolinas. The prescriptive, custom, and assessment/technical assistance programs continue to generate substantial savings and customer satisfaction by leveraging internal staff focused on providing solutions to participants. Prescriptive measures foster high-volume participation for common retrofit projects, while custom programs seek ways to provide in-depth technical expertise required to bring in larger and more unique projects.

Currently, 2,044 energy-efficiency equipment vendors, contractors, engineers, architects and energy services providers in the Carolinas who are registered as a trade ally ("TA") with the Smart \$aver® Non-residential Programs (Prescriptive and Custom, DEC and DEP). The Smart \$aver® outreach team builds and maintains relationships with TAs in and around Duke Energy's service territory. Existing relationships continue to be cultivated while recruiting new TAs remains a focus. Duke Energy's efforts to engage TAs include the following activities:

- TA Search tool located on the Smart \$aver® website
- Inspections of a sample of all projects to ensure quality control
- TAco-marketing including information about the Smart \$aver Program in the TA's marketing efforts
- Online application portal training and support
- Midstream channel support
- TA year-end awards
- TA newsletter and monthly emails
- Technology- and segment-specific marketing collateral
- TA discussion group (20 trade allies that give input on the Program)
- TA training
- Sponsorship of TA events
- Online collateral toolkit for access to marketing materials



## Non-Residential Smart \$aver Program

The TA outreach team educates TAs on the Program rules and the Smart \$aver Program expectations for TA conduct. The Company engages the TAs in promoting the Program as well as targeting TAs more effectively based on market opportunities.

An online application portal launched in 2016 and allows applicants to apply for incentives and track projects' progress throughout the submission process. The Company continues to consider ways to expand participation through new channels that offer instant incentives thus reducing the price of energy efficient products at the time of purchase and reducing or eliminating the need for a separate incentive application. In 2016, the Program launched an online energy savings store and a midstream marketing channel.

The Program has developed multiple approaches to reaching a broad and diverse audience of business customers through incentive payment applications, paper and online options, and instant incentives offered through the midstream marketing channel and the online energy savings store.

The growth during 2017 was strong than in 2016 due to several key factors.

- Customers showed high interest in energy efficiency and had significant funds to invest when combined with the rebates which offset a portion of the cost. The Program saw the following increases in 2017 incentive payments:
  - Foodservice - 54% increase
  - HVAC - 89% increase
  - Lighting - 57% increase
  - Pumps and motors and IT equipment had first participant ever in 2017
- More applicants are using the online application, an easier way to apply
- Midstream marketing channels attracted more distributors to the Program
- Outreach continued to support TAs working with the Program
- Targeted marketing reached out to customers and TAs
- A dedicated team of customer service representatives answered customer questions via phone and email
- Large account managers and business energy advisors developed personal relationships with large and medium businesses and were able to identify and support new EE projects

Customers have several options to participate in the Program. The following chart summarizes 2017 participating customers by Program channel:

Program Option	Participating Customers*	% 2017 Repeat Customer
Paper and Online Application Form	1,395	66%
Midstream Marketing Channel	625	64%
Online Energy Savings Store	86	34%

\*May include multiple facilities/sites for one customer.

During 2017, 2,343 incentives, consisting of 6,209 measures, were paid for Duke Energy Progress prescriptive measures. New application activity during this period was 2% higher than in 2016. During 2017, 35% of applications were submitted via the new online application portal. The average payment paid per application was \$5,049. Duke Energy utilizes an internal database that allows the Program to self-administer applications and track data.

Many TAs participating in the application process reduce the customer's invoice by the amount of the Smart \$aver® Prescriptive incentive and then receive reimbursement from Duke Energy. Customers often prefer this approach rather than paying the full cost of equipment upfront and receiving an incentive check from Duke Energy later.

The Duke Energy Business Savings Store on the Duke Energy website uses EFI, a the third-party that fulfills orders directly for the customers. The site gives customers the opportunity to take advantage of a limited number of prescriptive measure incentives by purchasing products from the on-line store at a purchase price reduced by the amount of the incentive. The discounts in the store are consistent with current incentive levels.

## Non-Residential SmartSaver Program

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The midstream marketing channel provides instant prescriptive incentives to eligible customers at a participating distributor's point of sale. Approved midstream distributors validate eligible customers and the lighting, HVAC, food service and IT products they selected to purchase through an online portal and use that information to show customers the reduced price of high efficiency equipment. Upon purchase, the distributor reduces the customer's invoice for the eligible equipment by the amount of the prescriptive incentive. Distributors then provide the sales information to Duke Energy electronically for reimbursement. The incentives offered through the midstream channel are consistent with current Program incentive levels.

Since 2016, DEP has partnered with Energy Solutions to provide an online portal for distributors to manage paperless validation and the online application, two features expected to drive growth significantly. In 2017, approximately 67% of the impact from prescriptive measure were from participation through the midstream marketing channel. Because the Program currently has 205 distributors enrolled in the midstream aspect of the Program and continues to add more well-known distributors to this channel, DEP expects this channel to increase participation in prescriptive measures.

Smart Saver Custom participants continue to identify energy efficiency offers eligible under this Program. An average of 9 new pre-approval applications per month were received in 2017.

Smart Saver Custom Incentives Program uses a flat rate incentive. A flat rate incentive is available for both energy and demand savings.

The Program launched a fast track option in 2017 which gives customers the ability to pay to speed up the processing time for their applications to seven business days. This fee is passed through to the vendor for its cost to expedite the application. In 2017, the Program received 11 Fast Track applications.

The Program also helped launch a complementary program in 2017, Smart Saver Performance Incentives, which allows customers to apply for projects which are not suitable for Smart Saver Custom. Smart Saver Performance Incentives is filed as a stand-alone program but will initially be implemented in conjunction with Smart Saver Custom to reduce confusion for customers and TAs.

### Issues

Feedback from participating customers and TAs is positive overall and provides some insight into program participation. Less than 5% of surveyed customers report dissatisfaction with the Program. Reasons for being dissatisfied include unhappiness with the 90-day time limit to submit an application, communication issues, and changes in the qualified products list that the Program references for eligibility. Less than 10% of surveyed TAs report dissatisfaction with the Program, with the most frequent reasons offered being that applications are too complex or incentive payments too slow. In response, the Program continues to work to improve communications, streamline application forms and processing, and promote channels that have simpler application processes and faster incentive payments. Some TAs cited competition with the vendor implementing Small Business Energy Saver, which is not intended in either programs' designs. Duke Energy also continues to reach out to customers who have not yet participated in the Smart Saver® Program to gather feedback as well.

Recently, the combination of the Program's incentives and the low cost of LED equipment has been very attractive for customers, and many have taken advantage of the opportunity to invest in LED upgrades. While significant opportunity for high efficiency lighting upgrades still exists, the excitement around LEDs has taken customers' attention away from EE opportunities outside of lighting. The Program has continued to promote non-lighting EE and encourage customers to go beyond lighting for efficiency. The Company continues to work with outside consultants and internal resources to develop strategies for leveraging equipment supply/value chains and for increasing awareness of non-lighting measures going forward.

The Smart Saver Custom Program application process is considered burdensome by some customers due to the individual and technically intensive review all projects applying for a custom incentives requires. Each year, the Program works to reduce the length of the application process, and the current process takes less than 20 days for all states/jurisdictions as a result.

## Non-Residential SmartSaver Program

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The technical review often requires customers (or their vendors) to quantify the projected energy savings from the proposed project, a lengthy process that may require engineering expertise. Where necessary, this requirement will continue, thus ensuring that incentives are being paid for cost-effective verifiable efficiency gains. However, the Custom-to-Go suite and the online application portal have relieved some of this burden.

The custom program is subject to large fluctuations in performance due to the fact that a significant number of large projects can drive the majority of annual impacts.

Custom program performance remains limited by customers who are opted out of the EE Rider. Those customers are not eligible to participate, and any projects they may have completed are considered lost opportunities. The custom program is actively working with internal resources (large account managers and business energy advisors) to evaluate whether opting in to the EE Rider for a potential project is the best option for customers currently opted out.

Finally, the custom program continues to see changes in available technologies as specific measures become eligible for Smart Saver Prescriptive.

### Potential Changes

In January 2017, DEP rebranded the Energy Efficiency for Business program to DEP Non-Residential Smart Saver Program. This will benefit the customers of North Carolina and South Carolina by offering consistent incentives across both programs. The change included the addition of more prescriptive technology groups, such as pumps & motors, process equipment, and information technology equipment, and included the removal of the incentive payment tiers.

Standards continue to change and new, more efficient technologies continue to emerge in the market. Duke Energy periodically reviews major changes to baselines, standards, and the market for equipment that qualifies for existing measures and explores opportunities to add measures to the approved Program so that it can provide incentives for a broader suite of energy efficient products. This work is ongoing, and a limited number of new measures and measure updates are expected to be made under the flexibility guidelines. For changes in existing measures, such as removing a measure or reducing the incentive amount, a 90-day grace period is extended to applications that were in process prior to the change. Measure that were removed recently include high performance and low watt T8 lamps and fixtures, pulse start metal halides, CFL reflector flood lamps, CFL high wattage lamps and CFL specialty lamp measures. Incentives were reduced for some LED measures, based on updated equipment cost data.

Measures that passed cost-effectiveness tests and were determined to be feasible for offer through the current prescriptive program channels and processes were added, as allowed, under the flexibility guidelines. These new measures included packaged terminal heat pumps, notched v-belts, high efficiency fans for commercial use outside of agricultural sector, residential Energy Star equipment for use in commercial settings (ex: refrigerators, clothes washers and dryers), LED lamp replacements for HID lamps and T5 fluorescent tubes, bi-level stairwell fixtures with integrated sensors, bi-level exterior occupancy sensors and several others.

Duke Energy is looking for new and innovative ways to reach out to customer segments that have had a lower rate of prescriptive incentive applications and considering options for partnering with other Duke Energy EE programs to cover gaps in the market. Along with the measure updates listed above, the Program is also considering offering new low-cost measures at no out-of-pocket costs to customers. Commission notification will be provided prior to offering these future measures.

The Program launched an optional new process for customers to pre-verify equipment eligibility for prescriptive incentives, giving customers certainty that their selected equipment qualifies for a prescriptive incentive prior to purchase and overcoming another barrier that can delay investment in EE projects. To date, 70 applications for pre-qualification have been received for customer projects in the Carolinas.

## Non-Residential Smart\$aver Program

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### E. Marketing Strategy

The Company continued marketing the Program in 2017 through various marketing channels such as the following:

- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Progress website
- Community outreach events
- Small Business Group outreach events
- Paid advertising/mass media
- Social media promotions
- TA outreach
- Account managers
- Segmentation managers

A table listing the marketing campaigns during the first half of 2017, with some samples of marketing graphics, are included as an appendix. These marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of Program participation.

Non-residential customers learn about programs via targeted marketing material and communications. TAs, who sell equipment and services to all sizes of nonresidential customers, pass along information about incentives also. Company account managers target large businesses or assigned accounts directly while the Company's business energy advisors reach out to unassigned small to medium business customers. The business energy advisors follow up on customer leads to assist with questions and to steer customers who are not already working with a TA to the referral tool. In addition, the business energy advisors contact customers with annual electrical costs between \$60,000 and \$250,000 to promote the Smart \$aver Program.

Large Business Account Managers and Local Government and Community Relations, who identify potential opportunities as well as distribute program collateral and informational material to customers and TAs, comprise the internal marketing team. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

The Program launched a new marketing channel in 2017 called New Construction Energy Efficiency Design Assistance (NCEEDA) to identify projects for customers currently underserved in the small and medium business market. This channel utilizes the vendor Weidt Group to help find those opportunities, complete savings calculations as well as submit applications for the customer. As of January 20, 2018, 73 projects have enrolled in the DEP - NCEEDA offering, representing 8.1 million square feet of new construction along with 34 Smart \$aver Custom project applications representing 9.2 million kilowatt hours of energy savings.

### F. Evaluation, Measurement and Verification

Process and impact evaluation work began late in 2016, and a combined DEC and DEP final report will be presented in 2018.

The process evaluation included interviews with program management, TAs, and customer participants. Customer and TA interviews included gauging customer satisfaction, free-ridership and spillover.

The impact evaluation consisted of estimating annual energy and demand impacts associated with program participation. The primary activity involved an engineering-based analysis to estimate the impacts of the various program measures. The analysis was supplemented by on-site field verification of sampled participants, as well as database and deemed savings reviews.

## Non-Residential Smart\$aver Program

### Appendix: Marketing schedule and examples

Month	Channel	Audience	Incentives Highlighted
July	Email, media campaign (digital display, social and preroll video)	Retail, Warehouse, Medical Restaurants, Commercial Real Estate*	ARC and VSD for Chillers
August	Email, media campaign (digital display, social and preroll video)	Data Centers, Commercial Real Estate*	Data Center Cooling
September	All marketing paused while teams responded for storm duty		
October	Email, Direct Mail, media campaign (digital, display, social and preroll video)	Restaurants, Healthcare, Education*	Demand Control Ventilation for Kitchen Exhaust
November	Email, media campaign (digital display, social and preroll video)	All customers*	Prequalification Channel
December	Email, media campaign (digital display, social and preroll video)	Manufacturing, Commercial Real Estate, Education, Water/Wastewater, Government, Retail, Healthcare*	Ductless Mini-splits

\* Email also sent to the participating TAs.

# Non-Residential Smart \$aver Program

## July ARC and VSD Campaign – Email

HVAC rebates boost energy savings. Trouble viewing? [View in browser](#)



UPGRADES THAT DON'T COST  
AN ARM AND A LEG.



Use our rebates and incentives to  
boost your customer's HVAC  
equipment performance.

If your customers have aging HVAC equipment with declining efficiency, urge them to consider a retrofit. Smart \$aver rebates and incentives let them supercharge their cooling equipment with new technologies that make it work smarter and save them money. Funds can be used to equip rooftop units with advanced controls, or to add a variable speed drive to an HVAC chiller. We even offer incentives for custom projects.

[FIND OUT MORE AND BE A HERO](#)

Smart \$aver is available to customers of all Duke Energy utilities, except Duke Energy Florida, where alternative options are available.



### MODERNIZE ROOFTOP UNITS (RTU)

Old RTUs can waste \$900-\$3,700 per unit annually.\*



### ADVANCED ROOFTOP CONTROLS (ARC)

Advanced controls can result in 20-50% reduction in energy use per year.\*



### OPTIMIZE EXISTING CHILLED WATER SYSTEMS

Add a variable speed drive to save on annual cooling costs.

\*energy.gov



# Non-Residential Smart \$aver Program

## August Data Center Cooling Campaign – Email

Data center cooling rebates can help you save. Trouble viewing? [View in Browser](#)

**DUKE ENERGY** | **Smart \$aver**  
Business

**FROM ENERGY HOG,  
TO CASH COW.**


**Upgrade data center cooling  
equipment and stop hogging energy.**


Keeping your data center cool drives up energy usage and cost. But what if you could make data center cooling equipment work smarter? Smart \$aver rebates for data cooling equipment, whether retrofit or replacement, help offset the cost of energy efficiency upgrades and put your data center on a path toward greater savings.


[HELP ME SAVE](#)

Smart \$aver is available to customers of all Duke Energy utilities, except Duke Energy Florida, where alternative options may be available.

**Explore data center cooling rebates**

  
**VFD ON CHILLED  
WATER PUMP**  
Modulates the motor speed of the chiller pump in response to demand and capacity.

  
**EZ PLUG FAN**  
Designed to help save energy when cooling units are operating at peak demand.

  
**VFD ON COMPUTER  
ROOM AC FAN**  
Adjusts energy use based on data center load fluctuation, yielding greater efficiency.


[f](#) [t](#) [in](#) [v](#) [c](#)



## Non-Residential Smart \$aver Program

### October Demand Control Ventilation Campaign – Email and Direct Mail (DM below)


**VENTILATION UPGRADES SAVE YOU MONEY.**



Reduce kitchen exhaust costs by up to **30-50%** with demand control ventilation upgrades.

**VENTILATE TO PERFECTION.**

Demand control ventilation enables you to vary the exhaust rate of kitchen ventilation. This helps avoid over-ventilation in your kitchen, thus saving energy costs and allowing you to run at maximum efficiency.

 Plus, get a **\$500/HP\*** Smart \$aver rebate when you upgrade.


Smart \$aver is available to customers of all Duke Energy utilities, except Duke Energy Florida, where alternative options are available.

Learn more at [duke-energy.com/Vent](http://duke-energy.com/Vent)

\*The terms and conditions for details. ©2017 Duke Energy Corporation. 07/17/17 9:17


Discover the immediate benefits of demand control ventilation upgrades:

- Better humidity control
- A cleaner kitchen with improved air quality
- A more comfortable working environment
- Lower utility bills




### November Prequalification Campaign – Email

Smart first step. Get pre-qualified for a rebate. Trouble viewing? [View in browser](#)



**Smart \$aver**  
Business

**LOOK BEFORE YOU LEAP.**




**Get pre-qualified for rebates first.**


Before making major energy efficiency upgrades, wouldn't it be nice to be sure about your rebate eligibility? With the new Smart \$aver pre-qualification option, now you can.

**GET PRE-QUALIFIED**


Here's how it works:



**STEP 1: Send us your application.**  
Apply to get your rebate eligibility pre-qualified. Rebate pre-qualification is voluntary but highly encouraged.



**STEP 2: Make upgrades.**  
When you receive your pre-qualification letter, your pre-qualified rebate amount for upgrades is valid for 90 days.



**STEP 3: Claim your rebate.**  
Once your project is complete, just log into the Duke Energy portal to request your rebate payment.



## Non-Residential Smart \$aver Program

### December Ductless Mini-split Campaign – Email

Don't miss out for ductless mini-split upgrades. [Trouble viewing? View in browser](#)

**DUKE ENERGY** | Smart \$aver Business

# THINK OUTSIDE THE DUCT

**Reduce energy loss and costs by switching to ductless mini-splits.**

For organizations seeking greater room-to-room temperature control and comfort, high-efficiency ductless mini-splits are a smart solution. Completely customizable to fit any space, they pump cool or warm air to specific rooms via individual air handlers, often reducing the need for ductwork.

**Save even more with Smart \$aver rebates.**  
Installing ductless mini-splits is even easier thanks to energy efficiency rebates from Duke Energy – up to \$115/ton for AC systems and up to \$110/ton for heating systems.

[MAXIMIZE COMFORT](#)

**Make targeted upgrades or make the switch to mini-splits.**

**SIMPLE UPGRADES**

Avoid major renovations and enhance your existing ducted system by installing a mini-split in a problematic room or area.

**MAJOR RENOVATIONS**

Consider ductless mini-splits for your new construction project or whole building renovation. Gain comfort and control.

Smart \$aver is available to customers in all Duke Energy territories, except Duke Energy Florida, where alternate options are available.

**BUILDING A SMARTER ENERGY FUTURE\***

[f](#) [t](#) [in](#) [v](#) [e](#)

Unsubscribe | Privacy Policy | [www.duke-energy.com](#)  
Duke Energy | 550 South Tryon Street | Charlotte, NC 28202

### Media Campaign – Retargeting Ads

**MAKE A FASTER BUCK.**

APPLY ONLINE FOR REBATES & INCENTIVES.

[LEARN MORE](#)

**LIKE A BREATH OF SMART AIR.**

GET REBATES FOR HIGH-EFFICIENCY HVAC EQUIPMENT.

[LEARN MORE](#)

**MADE-TO-ORDER SAVINGS.**

SMART \$AVER CUSTOM INCENTIVES.

[LEARN MORE](#)

**SAVING ENERGY AND MONEY. YOUR REAL BREAD AND BUTTER.**

[LEARN MORE](#)

## Non-Residential Smart \$aver Program

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### Media Campaign – Facebook Ad



# Business Energy Report

## A. Description

The Business Energy Report (“BER” or the “Program”) is a periodic comparative usage report that compares a customer’s energy use to a peer group’s. Comparative groups are identified based on the customer’s energy use, type of business, operating hours, square footage, geographic location, weather data and heating/cooling sources. Pilot participants received targeted energy efficiency tips in their report informing them of actionable ideas to reduce their energy consumption. The recommendations included information about other Company energy efficiency programs. Participants received at least six reports over the course of a year.

## Audience

This Pilot was offered to approximately 12,500 customers served on an eligible Duke Energy Progress, LLC (the “Company”) non-residential rate schedule, that are not opted out of the EE portion of the Rider, and that have at least 12 months of electric usage with the Company. Initial program participants were automatically enrolled in the Program and could request removal at any time.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	3,690	-	-3,690
Savings (MW)	0.60	-	-0.60
Participants		-	
2017 Program Expenses		\$20,288	

## D. Qualitative Analysis

As customers received subsequent reports and they learned more about their specific energy use compared to their peer group, their engagement increases. The report then provided customers with tools to reduce their usage in the form of targeted energy efficiency tips presenting actionable ideas. Customers were also encouraged to register for BER Interactive, an online portal that offered additional tips and information on their energy usage. Program participants were encouraged to contact the Company with questions and comments or to report corrections.

## Highlights

The Company mailed letters to pilot participants on December 30, 2015, welcoming them to the program. Customers were provided a form and a business reply envelope to update information about the business such as business type, operating hours, square footage, own/lease, heating/cooling information, and a contact name. After providing customers an opportunity to respond, the first report was mailed to customers on February 17, 2016. A customer satisfaction online survey was conducted on October 2016. The survey was sent to 2,663 treatment group DEP customers and 2,911 control group DEP customers. There was a 4% response rate from both the treatment and control group, with a total of 117 completed surveys received from the treatment group and 112 received from the control group. Key findings indicated that 35% of DEP BER participants recalled receiving the reports. Overall, 76% of BER participants were satisfied with the reports. Customers liked the reports because they found them informative and they helped them manage their usage. Since February 2016, 10 reports were mailed to each participating customer.

## Business Energy Report

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In the course of the Company's efforts to effectively manage the Pilot, concerns arose regarding the long-term outlook of the Pilot and its ability to be deployed across the service territories. First, the preliminary internal energy savings analysis performed by the Company lead it to question the Pilot's ability to achieve the energy savings projections associated with the program, casting significant doubt as to the Pilot's ongoing cost effectiveness. Second, the BER program team became aware of future viability issues related to the vendor currently administering the Pilot. In light of these issues and in order to minimize the costs borne by our customers, the Company terminated the Pilot effective August 31, 2017.

### **E. Marketing Strategy**

The Company communicated information about the Pilot via the customized proactive reports distributed through direct mail.

### **F. Evaluation, Measurement and Verification**

Due to the termination of the pilot, no further EM&V activities are planned.

# CIG Demand Response Automation

## A. Description

Demand Response Automation ("Program") allows Duke Energy Progress, LLC ("Company") to install data acquisition and optional load control devices to remotely monitor and control the following electrical equipment:

- HVAC
- Lighting
- Standby generation
- Variable speed motors
- Non-critical, interruptible operations

Program participants agree to reduce their total metered demand by the seasonal contracted kilowatt (kW) amount during the time specified in the event notification. Participants may reduce their demand using any method, including the use of other power sources. In return, these businesses receive valuable incentives as follows:

1. A one-time participation incentive of \$50/kW for demonstrated demand reduction during initial summer event(s) on the program,
2. Monthly credits of \$3.25/kW for the contracted amount of curtailable demand, and
3. Performance credits of \$6/kW for demand reduced during each curtailment event.

## Audience

The Program is available to commercial, industrial and governmental customers with a service base that is capable of contracting for a minimum of 75 kW in curtailable demand. Some exclusions apply based on rate schedules and participation in other riders.

## B & C. Impacts, Participants and Expenses

2017 Year- End Results	Forecasted	Actual	Variations
Savings (MWH)	-NA-	-NA-	-NA-
Savings (MW)	25.00	19.95	-5.05
Participants		71	
2017 Program Expenses		\$1,509,454	

## D. Qualitative Analysis

### Highlights

Final EPA regulations continue to prevent many customers with older standby generators from participating in the program, however, no more negative impacts are anticipated for existing participants. The program should also continue to benefit from changes made to the DSM/EE Opt-In provisions at the beginning of 2016. Fourteen new participants joined the Program in 2017.

### Potential Changes

No further changes to the program are anticipated.

## E. Marketing Strategy

The Company continues to market the Program directly through Large Account Management and has expanded efforts to reach eligible unassigned customers through various channels that include but are not limited to the following:

## CI&G Demand Response Automation

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- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Progress website
- Email
- Video
- Trade event presence
- Promotion by the new Medium Business Energy Advisors team

Additional detailed program information is located at [www.duke-energy.com/dra](http://www.duke-energy.com/dra).

### **F. Evaluation, Measurement and Verification**

The 2016 EM&V of this program was presented in the Collaborative meeting in July, 2017. The evaluation for the program had the following objectives: to replicate the DEP settlement algorithm, to validate the settlement impacts reported by DEP, to estimate verified impacts using a regression-based approach with day-of load adjustment, to estimate average kW event load shed per meter, by sector, and for the program as a whole. The 2016 analysis found the average load reductions were approximately 17.6 MW per summer event, approximately 300 kW per meter. Navigant, the EM&V evaluator, is currently conducting the analysis of PY2017.

## A. Description

The Duke Energy Progress, LLC's (the "Company") EnergyWise Business (the "Program") is an energy efficiency and demand response program for non-residential customers that allows the Company to reduce the operation of participants' AC units to mitigate system capacity constraints and improve reliability of the power grid. The Program provides customers with options for how they would like to participate. In exchange for participation, the Company provides participants with an annual incentive applied directly to their bill.

Program participants can choose between a Wi-Fi thermostat or a load control switch which is professionally installed for free for each air conditioning or heat pump unit at the premise. In addition to choosing the equipment, the participants can also choose at what cycling level they would like to participate—30%, 50%, or 75%. During a conservation period, the Company sends a signal to the thermostat or switch to reduce the amount of time the unit is running by the percentage the participant selected. For participating at the 30% level, the customer receives a \$50 annual bill credit for each unit, \$85 for the 50% level, or \$135 for the 75% level. Additionally, participants with a heat pump unit with electric resistance emergency/back up heat that choose the thermostat can also participate in a winter option which allows the Company to control the emergency/back up heat. For 100% control of the emergency/back up heat, the Company provides an additional \$25 annual bill credit.

Participants choosing the thermostat have access to a portal that allows them to control their units from anywhere with internet access. They can set schedules, adjust temperature set points, and receive energy conservation tips and communications from the Company. In addition to the portal access, participants also receive notifications of upcoming conservation periods. These notifications allow participants to make adjustments to their schedules or notify their employees of the upcoming conservation period. Participants are allowed to override two conservation periods per year without penalty. They can activate an override before or during the conservation period.

## Audience

The Program is available to existing non-residential customers that are not opted-out of the DSM Rider, have at least one air conditioner or heat pump that operates to maintain a conditioned space on weekdays during the calendar months of May through September, and are not served under Schedules LGS-RTP and SI, Riders NM, DRA, 57, 68 IPS, LLC or NFS. Also, customers must have an average minimum usage of 1,000 kWh during those same calendar months.

## B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	38	413	1,474
Savings (MW)	.8	.24	3.45
2017 Program Expenses		1,394,010	

## D. Qualitative Analysis

### Highlights

During 2017, the Program experienced tremendous growth. By the end of the year, the Program had enrolled 1,351 accounts and completed installation on 911 of them. The total number of installed devices as of the end of 2017 is 1,675. The door-to-door marketing (canvassing) efforts kicked off in 2016 continued to produce enrollments, installations, and positive customer interactions. Canvassing efforts in 2017 reached over 14,000 customers and are currently ongoing.

During the summer control season the Program completed 5 energy conservation events: June 14<sup>th</sup>, July 13<sup>th</sup>, July 21<sup>st</sup>, August 17<sup>th</sup> and August 22.

## Issues

The Program experienced issues with customers canceling appointments and causing inefficiencies and increased cost. The program now reminds customers of appointments by leaving an appointment card with the scheduled installation date and requirements and following up by telephone 24 to 48 hours before the appointment to confirm.

## Potential Changes

The Program will evaluate expanding the canvassing to additional markets in both North and South Carolina in 2018.

## E. Marketing Strategy

In 2017, the Program has continued to use a dedicated canvassing vendor for door-to-door marketing in Raleigh, the greater Raleigh region, and Asheville. Additionally, the Program continues to see enrollments as a result of cross promotion efforts with the Small Business Energy Saver program and the Duke Energy Business Energy Advisors.

## F. Evaluation, Measurement and Verification

During the Collaborative Meeting on July 14, 2017, the Company presented the findings from the first evaluation of the Program. Because the Program began in 2016, this first impact evaluation was planned as an engineering-based analysis. The evaluator, Opinion Dynamics (OD), recommended two changes to the Program: 1) Adopt more conservative HVAC average tonnage values and 2) increase promotion of higher cycling strategies among program enrollees.

For the energy efficiency savings, OD will use IPMVP Option C (utility billing analysis) to estimate impacts for calendar year 2017 using linear regression models to compare customer demand on event days with non-event days. For the process evaluation, OD will conduct program staff interviews, program data and document reviews, early participant interviews, non-participant and drop-out interviews. The final report is expected in 2018.



## Non-Residential Smart \$aver® Performance Incentive

### A. Description

Duke Energy Progress, LLC's (the "Company") Non-Residential Smart \$aver® Performance Incentives (the "Program") offers financial assistance to qualifying commercial, industrial and institutional customers to enhance their ability to adopt and install cost-effective electrical energy efficiency projects.

The Program encourages the installation of new high efficiency equipment in new and existing nonresidential establishments as well as efficiency-related repair activities designed to maintain or enhance efficiency levels in currently installed equipment. The Program provides incentive payments to offset a portion of the higher cost of energy efficient installations that are not eligible under either the Smart \$aver® Prescriptive or Custom programs. The types of projects covered by the Program include projects with some combination of unknown building conditions or system constraints, or uncertain operating, occupancy, or production schedules. The specific measures incentivized are stated in the agreement with the customer. The Program coordinates closely with the existing custom program team and shares resources for administrative review and payment processing. The Program requires pre-approval prior to project initiation. Only projects that demonstrate that they clearly reduce electrical consumption and/or demand are eligible for incentives.

The intent of the Program is to broaden participation in non-residential efficiency programs by being able to provide incentives for projects that previously were deemed too unpredictable to calculate an acceptably accurate savings amount, and therefore ineligible for incentives. This Program provides a platform to understand new technologies better.

The key difference between the Performance Incentive Program and the custom program is that the performance incentive customers get paid based on actual measure performance. A plan is developed to verify actual performance of the project upon completion and is the basis for the performance portion of the incentive.

The incentive is typically be paid out on the following schedule:

- Incentive #1: For the portion of savings that are expected to be achieved with a high degree of confidence, an initial incentive is paid once the installation is complete.
- Incentive #2: After actual performance is measured and verified, the performance-based part of the incentive is paid. The amount of the payout is tied directly to the savings achieved by the measures.

The Company contracts with Alternative Energy Systems Consulting, Inc. (AESC) to perform technical review of the applications. All other program implementation is performed by Duke Energy employees or direct contractors.

### Audience

All of the Company's non-residential electric accounts billed on qualifying rate schedules are eligible, except accounts that are opted out of the rider.

### B & C. Impacts, Participants and Expenses

2017 Year End Results	Annual Forecast <sup>1</sup>	Actual	Variations
Savings (MWH)	N/A	414	N/A
Savings (MW)	N/A	.06	N/A
Participants		1	
2017 Program Expenses		\$147,647	

<sup>1</sup> Forecast values not included as Program was not included in original 2016 Projection Filing

### D. Qualitative Analysis

## Non-Residential Smart Saver® Performance Incentive

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### Highlights

As new technologies are introduced and changes occur in the energy efficiency marketplace, performance incentives are the perfect tool to influence and reward customers who invest in energy efficiency. The Smart Saver Performance Incentives program was launched in January 2017. Efforts were made to encourage internal resources, trade allies, and vendors who sell energy efficient equipment to promote the Program and assist customers who could participate.

Launching a new program often takes time to create awareness and understanding of the new offering and to identify opportunities. In DEP, the Program is beginning to see an increase in interest with the enrollment of three (3) Performance projects with estimated savings of 902,000 kilowatt hours and several other promising projects in the pipeline. With a compelling value proposition and with internal resources and trade allies getting comfortable with this unique program offering, participation is expected to continue to increase.

### Issues

No issues have arisen in the first year of this Program. However, program management is monitoring the following areas of interest:

- The preferred method for measuring and verifying a project's performance is accomplished by gathering, monitoring and analyzing customer billing history. However, if energy savings are not significant, an effective evaluation with billing information may not be possible. If this is the case, sub-metering is required at the customer's expense, and the time and expense may be a hurdle to participation.
- The Performance program cannot be offered to customers who are opted-out of the EE Rider. Performance projects can easily carryover into multiple calendar years because of the monitoring and verification requirement. The extended timeframe could make opting-in more difficult to justify to participate in the Program.
- From a customer perspective, the risk of measured energy savings being less than expected resulting in a smaller incentive payout may be undesirable.
- The Program is subject to large fluctuations in performance due to long project lead times, long monitoring and verification times, and the timeliness and size of the projects.

### Potential Changes

The Company will continuously consider functional enhancements to enhance participation, processing speed, and program efficiency.

Beginning in Q4, the Performance team will offer, on a limited basis until it can be evaluated in action, a software tool that will allow a proactive view of building performance and, in turn, identify buildings that are good candidates for energy efficiency programs. This tool offers an indication of which buildings have the greatest potential for energy savings and where to focus time and resources.

### E. Marketing Strategy

The 2017 marketing strategy for the Smart Saver Performance Incentive Program aligns closely with the Custom Program. The goal is to educate non-residential customers about the technologies incentivized through both programs, as well as the benefits of installing energy-efficient equipment. These efforts utilize a multi-channel approach, which will include the following:

- Email
- Direct Mail (letters to qualifying customers)
- Duke Energy Progress website

## Non-Residential Smart \$aver® Performance Incentive

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- Webinars
- Small Business Group outreach events
- Paid advertising/.mass media
- Industry Associations
- Large Account Managers
- Business Energy Advisors
- Trade Ally Outreach

These marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of participating.

Non-residential customers are informed of programs via targeted marketing material and communications. Information about incentives is also distributed to trade allies, who in turn sell equipment and services to all sizes of non-residential customers. Large business or assigned accounts are targeted primarily through assigned Company account managers. Unassigned small to medium business customers are supported by the Company's business energy advisors. The business energy advisors follow up on customer leads to answer questions and steer customers who are not already working with a trade ally to the trade ally search tool. In addition, the business energy advisors contact customers with electrical costs between \$60,000 and \$250,000 to promote the Non-Residential Smart \$aver Program.

The internal marketing channel is comprised of assigned Large Business Account Managers, Business Energy Advisors, and Local Government and Community Relations who all identify potential opportunities as well as distribute program collateral and informational material to customers and trade allies. In addition, the Economic and Business Development groups also provide a channel to customers who are new to the service territory.

### **F. Evaluation, Measurement and Verification**

Since the Program was launched in January 2017, no evaluation activities are planned for 2018. Future evaluation timing will depend upon sufficient participation.

## Small Business Energy Saver

### A. Description

The purpose of the Duke Energy Progress (the "Company") Small Business Energy Saver program (the "Program") is to reduce energy usage through the direct installation of energy efficient measures within qualifying non-residential customer facilities. All aspects of the Program are administered by a single Company-authorized vendor. Program measures address major end-uses in lighting, refrigeration, and HVAC applications.

Program participants receive a free, no-obligation energy assessment of their facility followed by a recommendation of energy efficiency measures that could be installed in their facility along with the projected energy savings, costs of all materials and installation, and the amount of the up-front incentive the Company. The customer makes the final determination of which measures will be installed after receiving the results of the energy assessment. The vendor schedules the installation of the energy efficiency measure at a convenient time for the customer, and electrical subcontractors perform the installation.

The Program is designed as a pay-for-performance offering, meaning that the vendor administering the Program is only compensated for energy savings achieved through the installation of energy efficiency measures.

### Audience

The Program is available to non-residential customers that are not opted-out of the Company's EE/DSM rider and have an average annual demand of 180 kW or less per active account.

### B & C. Impacts, Participants and Expenses

2017 Year-End Results	Annual Forecast	Actual	Variations
Savings (MWH)	33,569	45,712	12,143
Savings (MW)	6.40	9.13	2.73
Participants		40,204,005	
2017 Program Expenses		\$8,798,633	

### D. Qualitative Analysis

#### Highlights

Lime Energy is the Company-authorized vendor administering the Program in both DEC and DEP service areas. Though the Program has matured in the DEP service territory after 4 years of operation, customer interest remains strong with nearly 1,150 Small Business Energy Saver projects completed in 2017.

The Company administers a customer satisfaction survey to Program participants in DEP since 2014. Customers continue to respond very positively to the Program, with 85% of all 2017 survey participants rating their overall satisfaction with the Program experience at above an 8 on a scale of 10. Also, the majority of Program participants say that the Program has served to improve their perception of Duke Energy, with 85% of responders indicating that the Program has had a positive effect on their overall satisfaction with the Company.

In order to expand the Program offering to more small and medium business customers who will benefit from the direct install model and turn-key Program process, the Company filed a Program modification proposal in late 2016 with both the NC Utilities Commission and the Public Service Commission of SC to expand the Program's availability to include all non-residential customer accounts with an average annual demand of 180 kW or less, an increase from the previous eligibility limit of 100 kW annual average demand per account. This Program

## Small Business Energy Saver

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modification received regulatory approval in October 2016 and implemented shortly thereafter. Customers reacted very positively to this change in 2017, with 75 projects completed in DEP for newly eligible customers.

### Issues

While LED lighting measures remain the primary driver of energy savings in the Program for the foreseeable future, the Company has been actively working with Lime Energy to increase refrigeration and HVAC measure adoption.

The Company began work last year to evaluate new HVAC measures to add to the Program, with the goal of offering customers more comprehensive energy efficiency projects. Program management took steps in 2017 to offer additional HVAC measures—other than system/unit replacements—that are suitable for the small and medium business market, such as HVAC tune-ups, rooftop HVAC unit controls, and HVAC unit optimization devices.

### Potential Changes

The Company continues to evaluate the addition of incentivized measures which fit the direct install program model and are suitable for the small business market.

Also, the Company is currently evaluating potential changes to the Program incentive design, including exploring the concept of offering higher incentives to deep energy retrofit projects with multiple measure technologies. Ultimately, the Company would like for the Program to encourage customers to take on more comprehensive energy efficiency upgrades that maximize energy savings.

### E. Marketing Strategy

The Program is marketed primarily using the following channels:

- Lime Energy field representatives
- Direct mail (letters and postcards to qualifying customers)
- Duke Energy Progress website
- Email & Duke Energy Business E-Newsletters
- Social media and search engine marketing
- Direct marketing & outreach via Program administrator
- Outreach via Duke Energy Business Energy Advisors
- Community events

All marketing efforts are designed to create awareness of the Program, to educate customers on energy saving opportunities, and to emphasize the convenience of participation for the target market.

### F. Evaluation, Measurement and Verification

Evaluation activities began in 2017 for the next evaluation cycle, with a final report expected in 2018. New process evaluation activities included a customer journey mapping exercise to assess the qualitative experience of the customer and reveal key information such as loyalty, satisfaction, and frustrations with the Program. For the impact evaluation, new activities included revisiting the sampling methodology based on the current measures mix and customer facility size due to the higher demand consumption cap for participation (180 kW rather than 100 kW).